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ABSTRACT

Since 1977, alcohol and drug use among Ontario students has been studied every 2 years. To examine the patterns of alcohol and other drug use among Ontario students in 1983, a randomized sample of 5,835 students, representing grades 5, 7, 9, 11, and 13, from four geographical regions, completed an anonymous questionnaire. An analysis of the results showed that, as in previous surveys, the most prevalently used drug was alcohol, followed by tobacco and cannabis (such as marihuana). Most types of drugs, except for glue and other solvents, were more popular among older students (except grade 13). Also, illicit drug use, with the exception of cannabis, was still relatively infrequent among users. Only non-medical stimulant use increased between the two periods. The 1983 survey, in contrast to 1981, indicated that a slightly greater number of substances were more commonly used among males than females. This reflected significant increases in the use of six substances among males (glue, other solvents, medical barbiturates and tranquillizers, non-medical stimulants, and hallucinogens other than LSD or PCP). In contrast, no increase in drug use was found among females. (More specific drug use patterns by age, sex, grade, and geographic regions are also described in this report. Changes in usage patterns between 1981 and 1983 are analyzed, and trends in use since 1977 and 1979 are presented.) (Author/BL)

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PRELIMINARY REPORT OF ALCOHOL AND OTHER DRUG USE AMONG ONTARIO STUDENTS IN 1983, AND TRENDS SINCE 1977

by

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ABSTRACT

This paper reports a survey of alcohol and other drug use among students in Ontario schools. A total of 5,835 students in grades 5, 7, 9, 11 and 13 completed an anonymous questionnaire. A stratified single-stage cluster sample design selected students from all areas of the Province. As in previous surveys, the most prevalently used drug was alcohol, followed by tobacco and cannabis. The use of drugs in various age, sex, grade and geographic regions is described. Changes in usage patterns between 1981 and 1983 are analyzed; trends in use since 1977 and 1979 are also presented.

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PRELIMINARY REPORT OF ALCOHOL AND OTHER DRUG USE AMONG ONTARIO STUDENTS IN 1983, AND TRENDS SINCE 1977[1]

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Margaret A. Sheppard, and Godwin C. Chan[2]

INTRODUCTION

This study reports the patterns of alcohol and other drug use among Ontario students in 1983. The findings are based on the fourth wave of a series of biennial Provincial surveys. The first wave of these quasi-longitudinal surveys was conducted in 1977; therefore, the present report also provides data on the trends and changes occurring between the years 1977, 1979, 1981 and 1983.

Studies of this type contribute to the understanding of: (i) the nature and extent of alcohol and other drug use and problems associated with use; (ii) trends and the rate of change in alcohol and other drug use among adolescents; and (iii) the social and demographic correlates involved. The Addiction Research Foundation has been studying the alcohol and drug use characteristics of Ontario students for more than a decade. Studies were originally conducted in Metropolitan Toronto schools, beginning in 1968 (Smart and Fejer, 1975). In 1977, a new series of studies was initiated throughout the whole of Ontario to provide information on the extent and nature of alcohol and drug use in all areas of the Province.

The first study in the present series was carried out in 1977 (Smart and Goodstadt, 1977), the second in 1979 (Smart et al., 1979), the third in 1981 (Smart et al., 1981) and the fourth in 1983. The population sampled for all surveys covered

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[1] The views expressed in this document are those of the authors and do not necessarily reflect those of the Addiction Research Foundation.

[2] The authors wish to thank Hau Lei for his technical assistance in the data analysis and for the development of computer software used in analysing these data.

students enrolled in grades 5, 7, 9, 11 and 13 (grade 5 students, however, were not surveyed in the 1979 study). Although a core set of demographic and drug-use questions has remained consistent over the four studies, changes have been made to the questionnaire to examine current areas of interest. The present 1983 study differs from the earlier survey in the following respects: (i) more emphasis is given to cannabis issues, including adverse cannabis reactions; (ii) items pertaining to students' ethnicity, religion and order of drug use are included; and (iii) a 12-item deviancy scale is added. Previous test-retest reliability studies, conducted in 1979, indicated high reliability for demographic characteristics and reported drug use. In addition to high test-retest reliability, the literature regarding the reliability of drug-use questions has indicated that under-reporting is more common than over-reporting (Bachman and O'Malley, 1981; Bradburn and Sudman, 1979; Single et al., 1975; Smart and Jarvis, 1981).

The aims of the 1981 study were to determine:

(i) the extent of use of various drugs by students in grades 5 through 13, and trends in use from 1977 through 1983;
(ii) the problems students had encountered in relation to drinking and driving;
(iii) the extent and nature of problems related to drinking and use of drugs;
(iv) adverse reactions to cannabis use;
(v) attitudes toward both the use of cannabis and consequences of this use;
(vi) the extent of exposure to cannabis education programmes in the schools and attitudes towards these programmes;
(vii) the relationship between drug use and deviance; and
(viii) the availability to students of alcohol and other selected drugs.

This preliminary report presents only findings concerning the prevalence and frequency of use of alcohol and other drugs, changes in rates of use from earlier years, and how use relates to selected demographic characteristics. Data are presented only for those students enrolled in grades 7 to 13; the grade 5 student data are not included in the analysis due to their exclusion from the 1979 survey. Subsequent reports will examine other aspects of the data in greater depth.

METHOD

Sampling Design

The 1983 survey was based on a stratified single-stage cluster probability sample design.[3] The data were weighted to take into account variable sampling fractions and non-response by selected classes and students. The design made it possible to provide estimates of characteristics (for example, drug-use rates) both for the sampled population and for any of the strata (region and grade) in the design.

The target population was composed of all students enrolled in regular programmes in grades 5, 7, 9, 11 and 13 in Ontario Public and Separate (Catholic) school systems: it thus excluded those enrolled in private schools (but did not exclude the private sector, i.e. grades 11 and 13, of the Separate school system), special education classes, those institutionalized for correctional or health reasons, those on Indian reserves and Canadian Forces bases, or those in the far northern regions of Ontario (7% of the target population).

To obtain a desired minimum sample of 5,000 students, and based upon previous attrition rates (maximum 35%), an initial sample of 8,000 students was required. The Ontario student population was stratified according to four geographical regions (i.e., Metro Toronto, West, East and North Ontario) (see Appendix 1, Table A), and five grades (i.e., grades 5, 7, 9, 11 and 13), resulting in 20 strata. The 1983 projected student enrolment for each strata was calculated on the basis of enrolment figures for the two prior academic years (i.e., 1980-81 and 1981-82). A probability sample of students was independently selected from within each of the 20 strata. The sampling units were "homerooms", either as they already existed in schools or as determined on the basis of the average class size within the relevant stratum. In anticipation of refusals to participate by selected samples, two

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[3] The sampling design was originally developed by Dr. P. Peskun and Dr. M. Lanphier of York University, Toronto.

additional (alternative) samples of homeroom clusters were randomly selected from each stratum (see Appendix 1).

Procedures

The designated schools associated with the randomly selected clusters of homerooms were initially contacted by letter. The President of the Addiction Research Foundation requested cooperation in the study from each school board's chairman. Depending upon the policies of each board, agreement to participate was conditional upon approval from a research review committee, the principal of the school, the homeroom teacher and/or parents. Refusal to participate was dealt with in the following manner: if a school board refused, the previously sampled substitute board for the same stratum was approached; if an individual homeroom or student decided not to participate, no substitution took place but, rather, the data were statistically weighted to correct for this type of non-response.

The need for parental consent for a student to take part in the study was determined either by the school board or by the individual school. Fifty-nine percent of the selected students required parental consent forms. In most schools, letters were sent from the principal to the parents of the selected students explaining the survey and requesting cooperation. The administrators of the study provided these letters to the principal upon request. The letters were distributed in advance of the survey date, and had to be signed and returned to the school.

The students were administered questionnaires in class groups, in 30 to 40 minute sessions, during the months of February to early April, 1983. Participation was voluntary. Field staff provided a short introduction of the study to the students prior to its administration. Field staff read the questionnaire aloud to grade 5 students. All students recorded their responses directly on the questionnaire.

The Questionnaire

The data-gathering instrument was a self-administered anonymous questionnaire. French and English language versions were available. The content of the questionnaire included the following components:

(i) demographic and social characteristics (e.g., age, sex, grade level, ethnicity, religiosity, grade average, school programme level, weekly spending money, and use of spare time);

(ii) frequency of alcohol and drug use in prior year (i.e., tobacco, alcohol, cannabis, glue, solvents, barbiturates, heroin, speed, stimulants, tranquillizers, LSD, hallucinogens, PCP and cocaine);

(iii) extent of heavy drinking and problem drinking;

(iv) extent of problem drug use;

(v) onset of use of alcohol and other drugs;

(vi) availability of alcohol and other drugs;

(vii) cannabis use characteristics and associated adverse reactions;

(viii) attitudes toward cannabis use;

(ix) extent of cannabis education in the school environment;

(x) a scale measuring self-reported deviance; and

(xi) alcohol use and driving.

The grades 11 and 13 questionnaire included 129 items covering all the above content areas. The grades 7 and 9 questionnaire was composed of 117 items; the deviancy scale and drinking-driving items were not included. The grade 5 questionnaire was shortened to 63 items; deleted items were those inapplicable to this age group, such as drinking-driving, school programme and the deviancy questions, in addition to some items concerned with attitudes and alcohol and other drug problems.

Survey questions of relevance to the present report are as follows:

(i) Frequency of alcohol and other drug use in the preceding 12 months, for example, "In the last 12 months, how often have you used alcohol - liquor (rum, whisky, etc.), wine or beer?" Where considered necessary, the drug in question was specified in more detail by means of examples (see

Appendix 1, Table B). Students indicated the frequency of their drug use by means of multiple choice alternatives, which included "non-use" and not knowing what the drug was. Except for tobacco and alcohol use, "drug use" was considered to include any use of the drug within the prior 12 months. Tobacco use was any use other than "I tried one cigarette in the last 12 months." Alcohol use included any use other than "I have had a sip of alcohol to see what it was like."

(ii) Medical and non-medical use of barbiturates, stimulants and tranquillizers were differentiated: the former indicated use under the direction of a physician (prescription or otherwise), the latter indicated use without medical direction. This distinction is consistent with other drug surveys (Fishburne et al., 1979).

(iii) Demographic variables: sex, age, grade level and geographic region.

Data Weighting

The product of three weighting factors was applied to these data. First, and foremost, the sampling weight, based on enrollment figures, ensures the representativeness of the sample. That is, even though students were allocated approximately equally within each grade strata (to allow equal precision in their estimates), the sampling weight ensures that elements in the sample contribute only their relative share in the population for a given estimate. The two remaining weights were correction factors for non-response at the class and student level, respectively. Implicit in this weighting for non-response is the assumption that non-respondents are similar in characteristics to respondents.

Sample Characteristics

Selected students from 31 school boards participated in the survey. In total, 38 boards were approached to take part in the survey. Ten declined to participate; substitute selections of homerooms involved seven new boards and three boards which were already participating for other grade levels. Once board approval

was obtained, the schools were contacted and arrangements were made to administer the survey.[4]

Within the thirty-one cooperating boards, 267 classes of students were selected to participate in the survey. Of these, 261 did so. Table A (Appendix 2) indicates the composition and participation of boards, schools, and classes. In total, 227 schools, consisting of 261 homeroom classes, comprised the final sample.

Sample participation and non-response rates, broken down by region and by grade level, are presented in Appendix 2 (Table B); the response rate at the student level was 85%. Additionally, Appendix 2 (Table C) presents item non-response for the sample of grade 7 to 13 students. As a result of weighting the data to take into account the sample design and non-response adjustments, the unweighted sample of students (representing 1,098 students in grade 5; 1,548 in grade 7; 1,152 in grade 9; 931 in grade 11; and 1,106 in grade 13) was adjusted as summarized by the weighted percentages shown in Table 1.

Comparisons Between 1983 and 1981 Samples: It is best for a study of trends if the samples from different years remain somewhat similar in their major characteristics while still reflecting the characteristics of the school population for the year of the survey. Because both the 1981 and 1983 surveys employed identical sampling designs, in contrast to the multi-stage self-weighted designs employed in 1977 and 1979, the present report focuses on the analysis of trends between these two waves.

Table 1 shows the characteristics of the 1981 and 1983 samples (included also are the 1977 and 1979 characteristics). Fewer fieldwork problems in the administration of the 1983 survey were responsible for unequal representation

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[4] The survey was carried out by the Institute for Behavioural Research, Survey Research Centre, York University, which was responsible for the administration of the study, data collection, data weighting and initial data processing.

between years for some grade levels (and consequently, age levels). The 1983 sample, in contrast to that for 1981, included: (i) more students aged 13 and under (and, therefore, more grade 7); (ii) fewer students aged 14-15 (and, therefore, more grade 9); and (iii) fewer students aged 16-17. The reader, therefore, should interpret changes between survey years for the total samples with caution. Representation among the remaining characteristics - (i) 18 years and over, (ii) grade 11 and 13, and (iii) all regions - were comparable between survey years.

Data Analysis

Statistics summarized in the present report include a range around single percentage values; this range indicates the interval (i.e., confidence interval) within which the true population percentage probably lies. The reason for employing confidence intervals arises from the uncertainty associated with using the results obtained from a sample (in our case, 5,835 students) to draw conclusions about the entire target population from which the sample was drawn (in our case, approximately 427,000 students). If we had drawn and surveyed another sample, using identical procedures, the results would probably have differed slightly (i.e., more or less) from those we obtained from our present sample. The confidence interval around a percentage value indicates the range of the variation in percentage values which would have been obtained from most (in our case, 95 out of 100) of the other equivalent samples which we might have studied. The confidence interval (in our case, the 95% confidence interval) can also be interpreted as being 95% likely to include the percentage value we would have obtained if we had studied <u>every member</u> of the target population, rather than just a small sample from the population. In reporting, therefore, that the percentage of students who had used alcohol in the previous 12 months was 71.7% $\pm$ 2.3% (see Table 2), we mean that there is a 95% chance that the <u>actual</u> percentage of students in the population of

Ontario students who used alcohol lies somewhere between a minimum of 69.4 and a maximum value of 74.0.

The standard errors computed for both 1981 and 1983 percentage estimates are corrected for, firstly, finite population correction factors (since we are sampling a finite population without replacement), and secondly, characteristics of the sampling design (i.e., stratification, clustering and weighting) which incorporate what Kish (1965) has termed the design effect.

The difference between two percentage estimates was tested by t-tests for proportions (absolute t-values are presented in Appendix 3). Comparing the difference between two estimates is straightforward for independent or non-overlapping samples; in our case, where comparisons are made between 1981 and 1983 or between categories of stratified variables (i.e., region and grade level). However, comparisons between sub-groups that cut across sample clusters (e.g., student's sex or age), tend to be overly efficient due to a high degree of covariance in the levels of drug use between the categories of the variables compared (e.g., males vs. females). The covariance terms were not included in these cross-class comparisons and hence assumed to be zero. Since, however, they tend to be positive, their exclusion from the standard-error, generally, results in understated rather than overstated t-values.[5]

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[5] Because the likelihood of missing a significant effect (Type II error) is greater for age comparisons than for grade comparisons, discrepancies may occur in the levels of significance found between the within-year age comparisons and the within-year grade comparisons. This discrepancy is compounded by the lack of perfect correlation between grade and age level.

RESULTS

Prevalence of Alcohol and Other Drug Use in the Total Sample

Table 2 shows the prevalence of drug use (i.e., the proportion of drug users) among students in grades 7 to 13 for 1983, as well as for 1977, 1979 and 1981. As indicated, alcohol retains its place as the most popular drug, used by 71.7% ± 2.3% of the students during the previous 12 months. Tobacco was the next most prevalently used substance, followed closely by cannabis (29.1% ± 2.8% and 23.7% ± 1.8%, respectively). With the exception of non-medical stimulant use (used by 15.4% ± 1.8%), most other drugs were used by no more than 11% of the students.

Although the prevalence of use for most drugs stabilized between 1981 and 1983 at slightly lower levels - Table 2 (see also Appendix 3, Table A) - several new trends emerged while previous ones dissipated:

(i) Tobacco use declined non-significantly; thus, the significant drop in the prevalence of tobacco use found between 1979 and 1981 did not continue into 1983;

(ii) Non-medical stimulant use increased significantly from 12.1% in 1981 to 15.4% in 1983, to become the fourth most prevalently used substance. The increasing availability of pseudo-amphetamines (pills intentionally made to look and sound like amphetamines) may, in part, account for some of this increase;

(iii) Cannabis use declined from 29.9% in 1981 to 23.7% in 1983. Although we are interpreting this decline as being non-significant (due to changes in the age distribution of students), the magnitude of change suggests the genesis of a substantive trend. Such may or may not be confirmed in future studies.

The remaining changes are probably due to the 1983 sample including a higher proportion of younger students than was the case in 1981. Thus:

(i) Alcohol use declined for the total sample from 75.3% in 1981 to 71.7% in 1983 - but showed no significant decline when age (or grade) levels were considered separately;

(ii) And, the prevalence of glue use increased from 2.3% in 1981 to 3.2% in 1983, although, again, no significant increases were found within age or grade levels.

Prevalence of Alcohol and Other Drug Use Among Males and Females

The relationship between prevalence of drugs and student's sex is presented in Table 3 (see also Appendix 3, Table B). Findings from the 1983 data are as follows:

(i) Males, compared to females, were significantly more likely to report the use of cannabis, glue, non-medical barbiturates, LSD, hallucinogens other than LSD and PCP, and cocaine;

(ii) Unlike the findings of previous surveys, females, compared to males, did not report significantly more tobacco use. Moreover, females did not report the use of <u>any</u> drug significantly more than their male counterparts.

Several of the above findings are reflected by changes in the prevalence of use between 1981 and 1983 within each sex group (see Appendix 3, Table C). These changes are as follows:

(i) Female alcohol use decreased significantly (from 76.1% in 1981 to 70.8% in 1983); in contrast, male alcohol use decreased non-significantly;

(ii) <u>Among males</u> prevalence of <u>use declined significantly</u> for cannabis, medical barbiturates and tranquillizers; <u>use increased significantly</u> for glue, other solvents, hallucinogens other than LSD or PCP and non-medical stimulants;

(iii) <u>Among females</u> prevalence of <u>use declined significantly</u> for cannabis and, as mentioned earlier, alcohol; use did not increase for <u>any</u> drug.

Prevalence of Alcohol and Other Drug Use by Age Level

The prevalence of drug use for different age groups is presented in Table 4 (see also Appendix 3, Table D). As would be expected, some drugs are more likely to be used at some age levels than at others. Several relationships emerge from these data:

(i) The youngest age group (13 or under) was less likely than the older age groups to report the use of most drugs, with the exception of glue and other solvent use, which were most commonly used by those under 15 years;

(ii) For the majority of drugs, the prevalence of use peaked among the 16-17 year old age group. They reported a significantly greater use of tobacco, alcohol, cannabis, medically prescribed tranquillizers, non-medical

barbiturates and stimulants, LSD and hallucinogens other than LSD or PCP than the 14-15 year olds;

(iii) In contrast to the 16-17 year old age group, drug use was generally more conservative among those aged 18 and older; however, fewer prominent differences were found in this survey wave than was found between these two age groups in 1981. In particular, only for tobacco and heroin did the 18-and-over group report significantly lower prevalence of use.

In examining the trends between 1981 and 1983 within each age level (Table 4 and Appendix 3, Table E), these data indicate significant increases in illicit substance use, particularly among the older age groups. Changes between the two surveys are as follows:

(i) Among the 18-and-over group the prevalence of use of non-medical barbiturates, stimulants and tranquillizers, and hallucinogens other than LSD or PCP increased significantly;

(ii) Similarly, among the 16-17 year old age group the use of hallucinogens other than LSD or PCP increased significantly;

(iii) In contrast, the prevalence of medical barbiturate use declined significantly among the 14-15 year olds; no drugs increased in use in this age group;

(iv) Likewise, no significant changes were found among the youngest age group (13 years and under).

Prevalence of Alcohol and Other Drug Use by Grade Level

Prevalence of drug use in different grade levels reflects, at least partially, differences in students' ages. It is, therefore, not surprising that many of the differences reported above, as a function of age, are also found when the data are analyzed according to grade membership. Table 5 (see also Appendix 3, Table F) presents the prevalence of drug use as a function of grade level for 1983. The findings are as follows:

(i) Prevalence of drug use in grade 7 was generally lowest, being

(a) significantly lower than grade 9 for all drugs except glue, heroin, medical stimulants and cocaine;

(b) significantly lower than grade 11 for all drugs except heroin, medical stimulants, cocaine and PCP (in contrast, glue and other solvents were significantly higher than grade 11); and

(c) significantly less than grade 13 for the use of all drugs except glue, other solvents (which were higher than grade 13), medical stimulants and PCP;

(ii) With the exception of the use of glue, prevalence of drug use generally peaked by grade 11, as indicated by higher levels of use of tobacco, alcohol, cannabis, non-medical barbiturates, non-medical stimulants, medical tranquillizers, LSD and hallucinogens other than LSD or PCP, than in grade 9;

(iii) Prevalence of drug use in grade 13 was generally conservative in contrast to junior grades. Grade 13 was significantly lower than grade 11 for the use of tobacco, cannabis, glue, other solvents, non-medical barbiturates, heroin, speed, medical tranquillizers and LSD.

In addition, Table 5 (see also Appendix 3, Table G) shows significant increases between 1981 and 1983 in the use of illicit substances among students in higher grade levels:

(i) The use of stimulants on medical advice increased significantly among grade 7 students; while the use of medical barbiturates significantly decreased among grade 9 students;

(ii) Prevalence of alcohol and non-medical stimulants increased among grade 11 students;

(iii) Prevalence of non-medical barbiturates, stimulants, tranquillizers, and hallucinogens other than LSD or PCP increased among grade 13 students.

Prevalence of Alcohol and Other Drug Use by Geographical Region

Regional differences in the prevalence of drug use were less dramatic in 1983 than previously found in 1981. Table 6 (see also Appendix 3, Table H) shows the comparisons for drug use between the four regions of Ontario. The significant differences are as follows:

(i) Metropolitan Toronto was significantly lower than both the Northern and Eastern regions in its use of speed, and was significantly lower than the Eastern region in its use of medical barbiturates;

(ii) The Western region exhibited significantly higher prevalence rates of glue than Metropolitan Toronto and Eastern Ontario and in addition, significantly higher rates of hallucinogens other than LSD or PCP than Eastern Ontario;

(iii) Northern Ontario exhibited the highest prevalence of other solvent use (significantly more than Eastern Ontario), and the highest prevalence of non-medical barbiturates (significantly more than Metropolitan Toronto).

The finding that rates of drug use across regions were less dramatic in 1983 than found earlier in 1981 is, in part, a likely result of administration problems encountered in the Western region during the 1981 survey (which probably resulted in upwardly biased estimates for this region in 1981). Consequently, it is felt that between-year-trend comparisons for the Western region may be misleading and thus are not reported. The remaining regional data presented in Table 6 (see also Appendix 3, Table I) are summarized as follows:

(i) In Eastern Ontario, cannabis use declined significantly;

(ii) In Metropolitan Toronto the use of non-medical stimulants increased significantly;

(iii) In Northern Ontario the use of non-medical barbiturates and stimulants increased significantly.

Frequency of Reported Drug Use Within the Prior 12 Months

A. Alcohol, Tobacco & Cannabis

(i) The data in Table 7 indicate that the reported frequency of alcohol use is skewed towards the lower levels of use. Approximately 56% of the total sample and 79% of the alcohol users reported using alcohol two to three times a month or less within the prior twelve months. Daily drinking was uncommon among the total sample and among alcohol users;

(ii) Among alcohol users, no significant trends were found between the two survey periods (see Table 7 and Appendix 3, Table J);

(iii) The reported use of tobacco presented in Table 8 shows the frequency with which this substance is used. Approximately 11% of the total sample and 38% of tobacco users reported using six or more cigarettes on a daily basis;

(iv) The frequency of tobacco use has remained extremely stable between the years 1981 and 1983;

(v) After tobacco, cannabis is the second most frequently used substance. Of the total sample, about 5% reported using cannabis 40 or more times within the prior year (see Table 9). This frequent level of use is even more dramatic among cannabis users. Although 32.4% of users report

use only one or two times, 19.5% report using the drug 40 or more times within the prior year;

(vi) Between 1981 and 1983 frequency of cannabis use declined non-significantly among users (see Table 9 and Appendix 3, Table J).

B. Other Drug Use

The frequent use of drugs, other than alcohol, tobacco and cannabis, was generally uncommon (see Tables 10 and 11):

(i) Frequent use among the total sample of students was uncommon;

(ii) For most of the drugs (with the exception of non-medical barbiturates, stimulants and LSD) the majority of users reported use only once or twice during the prior twelve months;

(iii) The drugs most frequently used (40 or more times in the prior year) among users were illicit substances: speed (5%); non-medical barbiturates (6%); non-medical stimulants (7%); LSD (7%); cocaine (7%); and heroin (17%).

Frequency of Reported Drug Use and Consequences of Use During the Prior Four Weeks

In addition to the annual prevalence and frequency of use, students responded to questions regarding their frequency of cannabis and alcohol use within the prior four weeks and, additionally, three items gauging their experiences (if any) with alcohol consumption ((i) becoming "tight," (ii) becoming "drunk," and (iii) having five or more drinks on a single occasion) during that period of time. The findings (see Table 12) are as follows:

(i) The majority, 56.3%, of all students reported having used alcohol, in contrast to 14.2% who reported having used cannabis, during the prior four week period;

(ii) Among all students, a small percentage reported daily cannabis use (0.9%) or daily alcohol use (0.4%);

(iii) Among cannabis users and alcohol users, the majority reported use on only one or two occasions during the four weeks prior to the survey;

(iv) Cannabis users, in contrast to alcohol users, were more likely to report daily use during the prior four weeks (6.3% versus 0.8% respectively).

The results presented in Table 13 concerning the reported frequency of becoming "tight," "drunk" and consuming five or more drinks on the same occasion during the prior four weeks are as follows:

(i) Approximately one-fifth of all students reported experiencing alcohol consequences at least once (19.4% reported becoming "tight," 16.5% reported becoming "drunk," while 23.5% reported having five or more drinks on a single occasion).

(ii) Among those who used alcohol within the prior four weeks, the majority reported never becoming "tight," "drunk," or having five or more drinks (62.3%, 68.5% and 54.6%, respectively).

(iii) Although the majority of alcohol users reported no untoward experiences, a sizeable proportion reported frequent negative consequences (i.e., four or more times during the prior four weeks) and heavy drinking. Approximately 3.1% reported becoming "drunk," 5.2% reported becoming "tight," and 9.6% reported having five or more drinks on a single occasion.

Drug Use Among Franco-Ontarian Students

A neglected area of research has been the examination of drug use among French-Canadian students residing in Ontario. The present survey allowed for the examination of rates of drug use among this group: firstly, the target population included students enrolled in schools with French instruction; and secondly, students responded to two questions indicating their ethnic ancestry (on the male side) and language usually spoken at home. The number of students indicating French was usually spoken at home was too small to provide reliable estimates. Consequently, ethnic group was employed in the definition of Franco-Ontarian students. Other researchers have also employed this definition (Porter et al., 1982).

The data presented are for descriptive purposes only. The demographic characteristics of the French sample differed from the total sample. French

students were generally younger and were more likely living in the Northern region but less likely to be in Toronto. Therefore, the reader should not attempt to draw conclusions regarding differences in the rate of use between French students and the total sample. Without controlling for important demographic characteristics, contrasts between these two groups are tenuous and misleading. Future research, however, will address these concerns.

The prevalence of drug use is presented in Table 14; percentages are based on weighted responses from 305 students. As seen in Table 14, the most commonly reported drugs used were: (i) alcohol, used by 77.0%; (ii) tobacco, used by 37.2%; (iii) cannabis, used by 34.8%; and (iv) non-medical stimulants, used by 19.8%.

SUMMARY

This report should be viewed as preliminary, to be supplemented by later in-depth reports regarding other aspects of the data. The following provides a summary of findings considered separately for each drug type.

Alcohol

Alcohol use has remained the most prevalently used drug among students: 71.7% of all students reported its use during the prior 12 months. However, it was not the most frequently used substance; 56% of all students and 79% of alcohol users reported using it on only two to three occasions per month, or less. Moreover, daily drinking among both the total sample and among users was extremely uncommon (0.4% and 0.8%, respectively). Approximately 56% of all students reported using alcohol during the prior four weeks; one-fifth reported becoming "tight," "drunk," or having five or more drinks on a single occasion. Among alcohol users, the majority reported never experiencing the above consequences; however, 9.6% of users reported frequently (four or more times during the prior 4 weeks) consuming five or more drinks on a single occasion.

The prevalence of alcohol use did not vary significantly as a function of students' gender or geographic residence. Use, however, exhibited a relationship to age and grade level: rates increased significantly with increasing age and grade level until peaking among those aged 16-17 years/grade 11, with no decline among those aged 18 years and over/grade 13.

Use declined from 75.3% in 1981 to 71.7% in 1983; however, we attribute most of this decline to a larger proportion of younger students in the 1983 sample.

Additionally, use among females declined significantly, and use among grade 11 students increased between the two survey waves.

Tobacco

Following alcohol, tobacco was the second most prevalently used drug in 1983; 29.1% of all students surveyed report its use within the prior 12 months. However, it was the most frequently used substance; 11% of all students and 38% of tobacco users reported using six or more cigarettes daily during the prior 12 months.

Unlike the results of previous surveys, females no longer reported significantly greater prevalence of use than did males. Also, tobacco use was curvilinearly related to age and grade level: prevalence was lowest among those aged 13 or under/grade 7, peaked among those aged 16-17 years/grade 11 and then declined for those aged 18 and over/grade 13. Use of tobacco did not vary significantly according to geographical region.

Despite decreasing trends found earlier for tobacco use between 1979 and 1981, both the prevalence and frequency of use remained stable between 1981 and 1983. In fact, no significant trends were found associated with student's sex, age, grade or geographic region.

Cannabis

Cannabis was the third most prevalently used substance, following alcohol and tobacco; 23.7% of all students reported its use within the prior 12 months. Yet, cannabis was the second most frequently used drug (4.6% of all students and 19.5% of cannabis users reported its use 40 or more times within the prior 12 months). Moreover, 14% of all students used this substance within the prior four weeks. Although the majority of these cannabis users reported use only once or twice (during the prior four weeks), 6.3% reported use on a daily basis. This frequency of use far exceeded the daily use of alcohol (reported by 0.8% of the alcohol users).

The prevalence of cannabis use was significantly higher among males than females and significantly increased with each age and grade level until it peaked for those aged 16-17 years/grade 11. Use did not differ significantly between geographic regions.

Among the total sample, use declined from 29.1% in 1981 to 23.7% in 1983; however, much of this decline may be attributed to the younger age distribution of the 1983 sample. Nonetheless, the magnitude of change may suggest the genesis of a substantive trend. Yet, despite declines among the total sample, prevalence of use did not vary among age levels, nor did frequency of use among users.

Glue and Other Solvents

Glue and other solvent use was reported by a small proportion of students; 3.2% and 4.1% respectively, reported its use during the prior 12 months. Among users, however, these inhalants were infrequently used. A significantly

greater proportion of males than females reported the use of glue; no significant gender differences emerged for other solvent use. Inhalants were characteristically used by younger students.

The prevalence of glue use increased from 2.3% in 1981 to 3.2% in 1983. This increase, however, is probably a result of a larger proportion of younger students in the 1983 sample, in contrast to the 1981 sample. This interpretation is further suggested by the findings indicating no significant between-year trends within age or grade levels.

Medical Barbiturates, Stimulants and Tranquillizers

Of the three types of substances used on medical advice, the most prevalent was barbiturates, followed by tranquillizers and stimulants, used by 11.0%, 6.5% and 5.2% of the students, respectively. Most users reported infrequent use, on only one or two occasions, during the prior 12 months. Barbiturate and tranquillizer use increased significantly with age and grade; use of medical stimulants did not vary significantly by age of student. Rates of use between males and females were comparable for all three substances.

The prevalence of use remained stable between 1981 and 1983 for all three drugs; barbiturates declined slightly from 12.5% to 11.0%, stimulants declined from 6.1% to 5.2%, and tranquillizers declined from 7.5% to 6.5%. In addition, use of barbiturates and tranquillizers declined significantly among males but not among females. This decline among males resulted in similar rates of use between the sexes in 1983, in contrast to the previous survey which indicated a significant difference. Barbiturate use declined significantly among those aged 14 - 15 (grade 9).

Non-Medical Barbiturates, Stimulants and Tranquillizers

Of the three types of substances used on a non-medical basis, stimulants were by far the most widely used (and the fourth most prevalently used among all drugs). Approximately 15.4% of the students reported stimulant use during the preceding 12 months, in contrast to 6.0% who reported barbiturate use and 5.0% who reported tranquillizer use. A significantly greater proportion of males than females reported the use of barbiturates; no other gender differences were significant. Barbiturates and stimulants exhibited similar patterns of use by student's age and grade; in both cases use was lowest among the 13 or under age group (grade 7) and increased significantly with age, peaking among those aged 16-17 years (grade 11). Tranquillizer use, on the other hand, showed little variation between the three older age groups.

Non-medical stimulants were the only substance to increase significantly in use, from 12.1% in 1981 to 15.4% in 1983. The increase in rates of stimulant use was apparently attributed to increases among (i) males; (ii) students aged 18 and over (or grade 13); and (iii) students residing in Metropolitan Toronto and Northern Ontario.

The non-medical use of barbiturates and tranquillizers increased significantly between survey years among students aged 18 years (or grade 13). In addition, barbiturate use increased significantly among students in Northern Ontario.

LSD, PCP and Other Hallucinogens

The most widely used hallucinogen was LSD, followed closely by hallucinogens other than LSD and PCP (e.g., mescaline and psilocybin), and PCP; 8.6%, 6.0% and 2.0% of all students reported use in the prior 12 months, respectively. Not only was LSD the most prevalent, but it was also the most frequently used among such users. Approximately 7.2% of LSD users reported use 40 or more times in the prior 12 months, in contrast to 3.9% of PCP users and 2.8% of users of other hallucinogens. A significantly greater proportion of males than females reported the use of LSD and other hallucinogens; rates of PCP use were similar. The use of LSD and hallucinogens other than LSD or PCP increased significantly with age and grade level; use was lowest among those aged 13 or under, peaked among those aged 16-17 years, and stabilized among those aged 18 or over. The use of PCP, on the other hand, exhibited little variation by age or grade level.

Among the total sample, rates of hallucinogen use remained stable between 1981 and 1983. Use of LSD declined non-signficantly from 10.2% in 1981 to 8.6% in 1983 and PCP also declined non-significantly from 2.5% to 2.0%; use of hallucinogens other than LSD and PCP increased non-significantly from 4.7% to 6.0%. The small increase in other hallucinogen use was attributed to older male students.

Speed and Cocaine

The use of speed and cocaine were equally prevalent in 1983; 3.9% and 4.1% of students reported use, respectively, during the prior 12 months. Although at least one-half of the users reported infrequent use, i.e., one to two times during the prior 12 months, 5.3% of the speed users and 7.3% of the cocaine users reported use 40 or more times. A significantly greater proportion of males than females reported the use of cocaine. Neither substance exhibited age-related patterns of use similar to that seen for other substances. In particular, use did not vary significantly among students aged 14 to 18 years and over.

The use of these two substances fluctuated little between 1981 and 1983. Speed use increased non-significantly from 3.0% in 1981 to 3.9% in 1983; cocaine use decreased non-significantly from 4.8% in 1981 to 4.1% in 1983. No significant trends in use were associated with student's sex, age, grade or regional residence.

Heroin

Heroin was the least prevalently used drug by students; in 1983, only 1.6% of the students surveyed reported use during the prior 12 months. Nonetheless, it was the fourth most frequently used drug among users, preceded only by tobacco, cannabis and alcohol. In particular, although the majority of users reported use on one or two occasions during the prior 12 months, 16.9% reported using heroin 40 or more times. Use was least likely among those aged 18 and over, in contrast to those aged 14-15 or 16-17 years, and was unrelated to student's sex or regional residence.

Finally, heroin use remained static between the two survey periods; 1.5% reported use in 1981, in contrast to 1.6% in 1983. Moreover, no significant trends emerged in relation to student's sex, age, grade level or regional residence.

DISCUSSION AND CONCLUSIONS

Many of the findings of the present survey are similar to those found in the previous surveys. Alcohol, tobacco and cannabis still remain the most popular drugs. Most types of drugs, except for glue and other solvents, are more popular among older students (except grade 13). Also, illicit drug use, with the exception of cannabis, is still relatively infrequent among users. Only non-medical stimulant use increased between the two periods.

The 1983 survey, in contrast to 1981, indicated that a slightly greater number of substances were more commonly used among males than females. This reflects significant increases in the use of six substances among males (glue; other solvents; medical barbiturates and tranquillizers; non-medical stimulants; and hallucinogens other than LSD or PCP). In contrast, no increase in drug use was found among females.

As mentioned earlier, an overall decline in alcohol and cannabis use and an increase in glue use are possibly a result of there being a greater proportion of younger students in the 1983 sample than was the case in 1981. Other surveys, however, have also found significant declines in the use of cannabis (Johnston et al., 1982) and both cannabis and alcohol (Hollander and Davis, 1983). Whether these trends are attributable to improved education about adverse effects of cannabis, economic factors, or more general socio-cultural changes, cannot be determined at this time.

The possibility of declining rates of cannabis and alcohol use among the total sample appears promising. Nevertheless, increases in rates of use among various sub-groups, in particular among older male students, are cause for concern. These trends require future monitoring in order to confirm their existence and to examine their permanence over time.

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TABLE 1

CHARACTERISTICS OF THE 1977, 1979, 1981 AND 1983 SAMPLES

DEMOGRAPHIC CHARACTERISTIC	1977		1979		1981		1983	
	(N)	%	(N)	%	(N)[1]	%[2]	(N)[1]	%[2]
SEX								
Male	(2218)	47.5	(2429)	51.0	(1683)	53.0	(2333)	50.3
Female	(2454)	52.2	(2337)	49.0	(1570)	47.0	(2385)	49.3
AGE								
13 years & under	(1308)	28.0	(1237)	25.9	(757)	17.4	(1486)	33.0
14-15 years	(1547)	33.1	(1532)	32.0	(974)	38.0	(1150)	29.8
16-17 years	(1169)	25.0	(1240)	25.9	(953)	30.7	(1044)	24.4
18 years & over	(651)	13.9	(775)	16.2	(571)	13.9	(1041)	12.5
GRADE								
7	(1291)	27.6	(1274)	26.7	(782)	17.4	(1548)	34.2
9	(1582)	33.8	(1554)	32.5	(1004)	39.7	(1152)	30.1
11	(1066)	22.9	(1111)	23.2	(894)	29.1	(930)	23.5
13	(735)	15.7	(840)	17.6	(590)	13.7	(1107)	12.2
REGION								
Metro/Central	(2106)	44.9	(1719)	35.9	(684)	25.8	(1037)	21.9
North	(619)	13.2	(727)	15.2	(421)	10.0	(463)	8.6
East	(658)	14.0	(634)	13.2	(1142)	28.0	(1369)	29.4
- Eastern	(319)	6.8	(309)	6.4				
- Ottawa Valley	(339)	7.2	(325)	6.8				
West	(1305)	27.8	(1714)	35.8	(1023)	36.2	(1868)	40.1
- Western	(470)	10.0	(613)	12.8				
- Mid-Western	(263)	5.6	(528)	11.0				
- Niagara	(572)	12.2	(573)	12.0				
TOTAL	(4687)	100.0	(4794)	100.0	(3270)	100.0	(4737)	100.0

1 Based on actual (unweighted) sample.

2 Based on weighted responses.

* The seven regions sampled in 1977 and 1979 correspond approximately to the four regions sampled in 1981 and 1983.

TABLE 2

ALCOHOL AND OTHER DRUG USE AMONG STUDENTS IN GRADES 7 TO 13

DRUG	PERCENT USING DRUG AT LEAST ONCE IN PRIOR 12 MONTHS				
	1977	1979	1981	1983	
Tobacco	30.4 ± 2.4	34.7 ± 2.3	30.3 ± 3.7	29.1 ± 2.8	
Alcohol	76.3 ± 1.4	76.9 ± 1.4	75.3 ± 2.2	71.7 ± 2.3	+
Cannabis	25.1 ± 2.5	31.7 ± 2.5	29.9 ± 2.8	23.7 ± 1.8	+
Glue	3.9 ± 2.8	4.3 ± 2.7	2.3 ± 0.5	3.2 ± 0.4	+
Other Solvents	6.6 ± 2.7	6.2 ± 2.7	3.2 ± 0.6	4.1 ± 0.6	
Barbiturates (M)	14.2 ± 2.6	12.8 ± 2.6	12.5 ± 1.0	11.0 ± 1.3	
Barbiturates (NM)	6.0 ± 2.7	6.8 ± 2.7	8.1 ± 2.3	6.0 ± 1.0	
Heroin	2.0 ± 2.8	2.3 ± 2.8	1.5 ± 0.5	1.6 ± 0.4	
Speed	2.7 ± 2.8	3.6 ± 2.8	3.0 ± 0.7	3.9 ± 1.7	
Stimulants (M)	6.6 ± 2.8	5.9 ± 2.7	6.1 ± 0.9	5.2 ± 0.9	
Stimulants (NM)	7.2 ± 2.7	10.6 ± 2.7	12.1 ± 1.8	15.4 ± 1.8	*
Tranquillizers (M)	8.6 ± 2.7	6.9 ± 2.7	7.5 ± 0.8	6.5 ± 0.8	
Tranquillizers (NM)	4.9 ± 2.8	5.9 ± 2.7	4.9 ± 0.9	5.0 ± 1.0	
LSD	6.1 ± 2.7	8.6 ± 2.7	10.2 ± 1.8	8.6 ± 1.1	
Other Hallucinogens	4.3 ± 2.8	5.3 ± 2.7	4.7 ± 1.4	6.0 ± 1.1	
Cocaine	3.8 ± 2.8	5.1 ± 2.7	4.8 ± 1.0	4.1 ± 0.9	
PCP	-	-	2.5 ± 0.8	2.0 ± 0.5	

(M) Medical use
(NM) Non-medical use
* $p < .05$

\+ Changes in percentages, although appearing significant, are possibly a function of a greater proportion of older students in the 1981 sample. Thus, these changes are best interpreted as being non-significant; however, the magnitude of the decline for cannabis and alcohol use may suggest a real change.

\- Not queried

Note: See Appendix 3, Table A for t-values.

TABLE 3

DRUG USE BY SEX

(PERCENT USING DRUGS AT LEAST ONCE IN PRIOR TWELVE MONTHS)

TYPE OF DRUG	SEX	YEAR				
		1977	1979	1981	1983	
Tobacco	Male	28.5 ± 3.5	32.1 ± 3.3	26.1 ± 2.4	28.1 ± 3.8	
	Female	32.1 ± 3.2	37.5 ± 3.2	35.1 ± 6.2	30.1 ± 2.8	
Alcohol	Male	78.5 ± 1.9	79.0 ± 1.8	74.7 ± 2.3	72.6 ± 2.7	
	Female	74.3 ± 2.0	74.9 ± 2.0	76.1 ± 3.0	70.8 ± 2.1	**
Cannabis	Male	29.4 ± 3.5	36.4 ± 3.1	33.2 ± 2.4	28.0 ± 2.2	***
	Female	21.1 ± 3.5	26.8 ± 3.4	26.3 ± 4.9	19.4 ± 1.9	***
Glue	Male	4.5 ± 4.0	5.8 ± 3.8	2.3 ± 0.7	3.8 ± 0.8	***
	Female	3.2 ± 3.8	2.7 ± 4.0	2.2 ± 0.9	2.7 ± 0.7	
Other Solvents	Male	7.0 ± 4.0	7.1 ± 3.8	3.4 ± 0.6	4.6 ± 0.8	*
	Female	6.2 ± 3.8	5.3 ± 3.9	2.9 ± 0.7	3.6 ± 0.9	
Barbiturates (M)	Male	14.3 ± 3.8	12.7 ± 3.7	14.5 ± 1.8	11.4 ± 1.4	**
	Female	14.1 ± 3.6	13.0 ± 3.8	10.4 ± 1.4	10.5 ± 1.6	
Barbiturates (NM)	Male	6.6 ± 4.0	8.2 ± 3.8	8.3 ± 2.0	7.2 ± 1.0	
	Female	5.4 ± 3.8	5.3 ± 3.9	7.9 ± 3.0	4.9 ± 1.2	
Heroin	Male	2.0 ± 4.1	2.9 ± 3.9	2.0 ± 0.5	2.0 ± 0.7	
	Female	1.9 ± 3.9	1.5 ± 4.0	0.8 ± 0.5	1.3 ± 0.5	
Speed	Male	3.7 ± 4.0	4.5 ± 3.8	3.1 ± 0.8	5.2 ± 2.1	
	Female	1.8 ± 4.0	2.5 ± 3.9	3.0 ± 1.0	2.6 ± 1.4	
Stimulants (M)	Male	6.9 ± 4.0	6.8 ± 3.8	6.9 ± 1.3	5.7 ± 1.2	
	Female	6.2 ± 3.8	4.9 ± 3.9	5.3 ± 1.0	4.8 ± 1.1	
Stimulants (NM)	Male	7.7 ± 4.0	12.2 ± 3.7	12.0 ± 1.8	15.9 ± 2.2	**
	Female	6.7 ± 3.8	8.9 ± 3.8	12.0 ± 2.9	14.8 ± 2.0	
Tranquillizers (M)	Male	7.7 ± 4.0	6.7 ± 3.8	7.5 ± 1.1	5.8 ± 0.6	*
	Female	9.4 ± 3.7	7.0 ± 3.9	7.6 ± 1.4	7.0 ± 1.4	
Tranquillizers (NM)	Male	5.2 ± 4.0	6.2 ± 3.8	5.6 ± 1.1	5.4 ± 1.5	
	Female	4.7 ± 3.8	5.5 ± 3.9	4.2 ± 1.2	4.6 ± 1.0	
LSD	Male	7.3 ± 4.0	10.4 ± 3.7	11.4 ± 1.2	10.8 ± 1.3	
	Female	5.0 ± 3.8	6.8 ± 3.9	8.9 ± 3.0	6.4 ± 1.4	

TABLE 3 (continued)

TYPE OF DRUG	SEX	YEAR 1977	1979	1981	1983
Other Hallucinogens	Male	6.0 ± 4.0	6.4 ± 3.8	5.5 ± 1.7	8.1 ± 1.1 *
	Female	2.9 ± 3.9	4.2 ± 3.9	3.7 ± 1.4	3.8 ± 0.9
Cocaine	Male	5.0 ± 4.0	6.6 ± 3.8	5.7 ± 1.4	5.6 ± 1.2
	Female	2.6 ± 3.9	3.4 ± 3.9	3.7 ± 1.3	2.7 ± 0.8
PCP	Male	-	-	3.0 ± 1.0	2.4 ± 0.7
	Female	-	-	1.9 ± 0.9	1.7 ± 0.6

(M) Medical use

(NM) Non-medical use

\- Not queried

* $p < .05$

** $p < .01$

*** $p < .001$

Note: See Appendix 3, Tables B & C for t-values.

TABLE 4

DRUG USE BY AGE

(PERCENT USING DRUGS AT LEAST ONCE IN PRIOR 12 MONTHS)

TYPE OF DRUG	AGE	YEAR				
		1977	1979	1981	1983	
Tobacco	<13	13.5 ± 5.0	18.8 ± 5.0	8.8 ± 0.9	12.7 ± 5.6	
	14-15	32.4 ± 4.1	36.8 ± 3.9	31.1 ± 5.9	33.6 ± 1.2	
	16-17	42.5 ± 4.3	46.7 ± 4.0	42.7 ± 5.8	44.0 ± 6.1	
	18+	37.8 ± 6.0	36.4 ± 5.6	26.9 ± 10.2	31.9 ± 2.5	
Alcohol	<13	57.5 ± 3.5	56.8 ± 3.7	47.6 ± 5.6	52.7 ± 5.9	
	14-15	75.3 ± 2.4	75.3 ± 2.5	74.6 ± 3.8	71.1 ± 2.6	
	16-17	88.3 ± 1.9	89.6 ± 1.8	85.0 ± 4.2	88.5 ± 2.6	
	18+	94.8 ± 1.7	91.5 ± 2.0	89.8 ± 5.3	89.9 ± 1.7	
Cannabis	<13	5.7 ± 5.2	9.6 ± 5.3	5.7 ± 1.9	3.9 ± 1.9	
	14-15	21.7 ± 4.4	28.1 ± 4.2	25.3 ± 2.9	24.3 ± 2.9	
	16-17	41.4 ± 4.3	49.5 ± 3.9	45.5 ± 6.6	40.8 ± 4.3	
	18+	42.5 ± 5.8	45.1 ± 5.2	37.1 ± 5.2	40.4 ± 2.1	
Glue	<13	6.1 ± 5.2	7.1 ± 5.4	3.4 ± 1.8	4.7 ± 0.9	
	14-15	4.1 ± 4.8	5.0 ± 4.8	3.1 ± 0.7	4.0 ± 0.8	
	16-17	2.1 ± 5.7	2.3 ± 5.5	1.6 ± 0.6	1.6 ± 0.8	
	18+	2.0 ± 7.5	1.9 ± 6.8	0.1 ± 0.2	0.8 ± 0.6	
Other Solvents	<13	12.0 ± 5.1	9.3 ± 5.3	5.0 ± 2.1	6.6 ± 1.0	
	14-15	6.8 ± 4.8	7.9 ± 4.8	4.8 ± 1.1	4.2 ± 1.7	
	16-17	2.8 ± 5.6	3.6 ± 5.4	1.5 ± 0.7	2.1 ± 0.8	
	18+	2.0 ± 7.5	2.3 ± 6.8	0.4 ± 0.5	1.2 ± 0.6	
Barbiturates (M)	<13	7.2 ± 5.2	8.8 ± 5.3	6.4 ± 3.1	7.7 ± 2.3	
	14-15	14.1 ± 4.6	13.2 ± 4.6	13.6 ± 2.0	10.7 ± 1.6	*
	16-17	19.9 ± 5.1	15.3 ± 5.1	14.2 ± 2.6	14.2 ± 3.5	
	18+	18.3 ± 6.9	14.1 ± 6.5	13.3 ± 3.3	13.6 ± 2.1	
Barbiturates (NM)	<13	2.5 ± 5.3	2.6 ± 5.5	1.1 ± 0.6	1.3 ± 0.9	
	14-15	6.7 ± 4.8	6.9 ± 4.8	8.5 ± 3.9	6.2 ± 1.0	
	16-17	8.7 ± 5.4	11.3 ± 5.2	13.2 ± 4.2	11.3 ± 3.3	
	18+	6.6 ± 7.3	5.4 ± 6.8	3.9 ± 1.9	7.7 ± 1.5	**
Heroin	<13	1.6 ± 5.4	1.7 ± 5.5	0.6 ± 0.3	1.3 ± 0.7	
	14-15	2.5 ± 4.8	2.8 ± 4.9	2.0 ± 0.7	2.1 ± 1.0	
	16-17	1.6 ± 5.6	2.3 ± 5.5	1.7 ± 0.8	2.1 ± 0.8	
	18+	2.0 ± 7.5	1.9 ± 6.8	0.4 ± 0.6	0.7 ± 0.6	
Speed	<13	2.4 ± 5.3	2.0 ± 5.4	1.0 ± 0.2	0.9 ± 0.6	
	14-15	2.9 ± 4.9	3.7 ± 4.8	3.2 ± 1.2	6.6 ± 5.3	
	16-17	2.7 ± 5.6	4.4 ± 5.4	4.3 ± 1.3	4.7 ± 1.3	
	18+	3.1 ± 7.5	4.3 ± 6.8	2.4 ± 1.0	3.6 ± 1.3	

TABLE 4 (continued)

TYPE OF DRUG	AGE	YEAR 1977	1979	1981	1983	
Stimulants (M)	<13	5.6 ± 5.3	3.9 ± 5.5	4.2 ± 0.7	4.2 ± 0.4	
	14-15	6.0 ± 4.8	5.9 ± 4.8	6.9 ± 1.0	5.8 ± 1.4	
	16-17	9.0 ± 5.4	7.8 ± 5.3	6.7 ± 1.7	6.2 ± 2.5	
	18+	5.5 ± 7.4	5.7 ± 6.8	4.9 ± 3.5	4.6 ± 1.6	
Stimulants (NM)	<13	3.4 ± 5.3	3.9 ± 5.5	3.2 ± 1.0	2.7 ± 1.2	
	14-15	8.9 ± 4.7	10.1 ± 4.7	11.9 ± 2.1	15.2 ± 2.6	
	16-17	9.5 ± 5.4	17.9 ± 5.0	18.6 ± 4.4	27.6 ± 5.8	
	18+	6.6 ± 7.3	10.1 ± 6.6	8.3 ± 2.9	25.6 ± 2.4	***
Tranquillizers (M)	<13	6.1 ± 5.2	5.4 ± 5.4	3.4 ± 1.2	4.0 ± 1.1	
	14-15	9.1 ± 4.7	5.7 ± 4.8	7.6 ± 1.7	6.2 ± 1.6	
	16-17	10.1 ± 5.4	8.5 ± 5.3	9.6 ± 2.0	9.2 ± 1.2	
	18+	9.7 ± 7.2	8.5 ± 6.7	7.6 ± 2.6	8.0 ± 1.7	
Tranquillizers (NM)	<13	1.9 ± 5.4	2.4 ± 5.5	1.4 ± 0.7	1.9 ± 0.8	
	14-15	5.6 ± 4.8	6.0 ± 4.8	6.1 ± 1.7	6.2 ± 1.9	
	16-17	6.8 ± 5.5	8.6 ± 5.3	6.7 ± 1.7	6.7 ± 2.7	
	18+	6.0 ± 7.4	6.6 ± 6.7	2.2 ± 1.8	6.8 ± 2.0	***
LSD	<13	2.2 ± 5.3	3.6 ± 5.4	1.8 ± 1.3	1.4 ± 0.9	
	14-15	5.6 ± 4.8	8.3 ± 4.7	9.7 ± 3.1	9.2 ± 1.1	
	16-17	9.9 ± 5.4	13.9 ± 5.1	16.3 ± 4.1	15.7 ± 3.1	
	18+	8.4 ± 7.3	8.4 ± 6.7	8.5 ± 2.3	12.0 ± 3.1	
Other Hallucinogens	<13	1.0 ± 5.3	1.7 ± 5.5	0.7 ± 0.3	0.7 ± 0.7	
	14-15	3.2 ± 4.8	4.0 ± 4.9	4.4 ± 2.8	5.4 ± 1.8	
	16-17	7.4 ± 5.5	9.2 ± 5.2	7.2 ± 2.4	11.5 ± 2.5	*
	18+	8.3 ± 7.3	7.2 ± 6.7	4.5 ± 2.8	10.4 ± 2.3	**
Cocaine	<13	2.3 ± 5.3	3.7 ± 5.5	2.5 ± 0.9	2.7 ± 0.9	
	14-15	4.3 ± 4.8	5.6 ± 4.8	5.4 ± 1.8	3.9 ± 1.6	
	16-17	4.2 ± 5.6	5.9 ± 5.3	5.6 ± 1.6	5.4 ± 1.7	
	18+	4.3 ± 7.4	5.3 ± 6.8	3.6 ± 2.3	5.9 ± 1.6	
PCP	<13	-	-	1.1 ± 1.2	1.0 ± 0.4	
	14-15	-	-	2.5 ± 2.1	2.6 ± 0.4	
	16-17	-	-	3.6 ± 1.0	2.7 ± 1.5	
	18+	-	-	1.6 ± 1.1	2.1 ± 1.5	

(M) Medical use
(NM) Non-medical use
- Not queried

* $p < .05$
** $p < .01$
*** $p < .001$

Note: See Appendix 3, Tables D & E for t-values.

TABLE 5

DRUG USE BY GRADE

(PERCENT USING DRUGS AT LEAST ONCE IN PRIOR TWELVE MONTHS)

TYPE OF DRUG	GRADE LEVEL	YEAR 1977	1979	1981	1983	
Tobacco	7	14.1 ± 5.0	20.3 ± 4.9	9.4 ± 1.5	14.9 ± 6.5	
	9	33.3 ± 4.0	36.4 ± 3.9	32.2 ± 5.4	32.6 ± 1.5	
	11	41.1 ± 4.6	49.1 ± 4.2	43.4 ± 5.5	44.6 ± 5.5	
	13	36.7 ± 5.7	33.7 ± 5.5	23.1 ± 9.9	30.0 ± 3.0	
Alcohol	7	57.4 ± 3.5	57.0 ± 3.6	47.3 ± 5.4	53.1 ± 6.1	
	9	75.5 ± 2.4	75.4 ± 2.4	75.4 ± 3.4	71.5 ± 2.6	
	11	87.4 ± 2.1	89.9 ± 1.9	83.9 ± 2.9	89.0 ± 2.1	**
	13	94.8 ± 1.6	92.1 ± 1.9	91.7 ± 1.9	90.6 ± 1.3	
Cannabis	7	5.6 ± 5.3	10.4 ± 5.2	5.7 ± 1.8	5.2 ± 2.7	
	9	23.2 ± 4.3	29.2 ± 4.1	27.1 ± 3.4	25.1 ± 2.7	
	11	39.4 ± 4.6	50.2 ± 4.1	44.2 ± 7.2	42.1 ± 4.7	
	13	42.4 ± 5.4	43.6 ± 5.0	37.4 ± 6.1	36.5 ± 1.4	
Glue	7	6.5 ± 5.3	7.4 ± 5.3	3.7 ± 1.9	4.7 ± 0.8	
	9	4.0 ± 4.8	5.0 ± 4.8	3.0 ± 0.7	4.0 ± 0.8	
	11	2.1 ± 5.9	2.1 ± 5.8	1.3 ± 0.6	1.6 ± 0.9	
	13	1.8 ± 7.1	1.5 ± 6.5	0.2 ± 0.3	0.4 ± 0.3	
Other Solvents	7	12.8 ± 5.1	10.1 ± 5.2	5.5 ± 2.0	7.0 ± 1.0	
	9	6.1 ± 4.7	7.6 ± 4.7	4.7 ± 0.8	3.7 ± 1.8	
	11	2.9 ± 5.8	3.6 ± 5.7	1.4 ± 0.7	2.1 ± 0.9	
	13	2.3 ± 7.0	1.7 ± 6.7	0.0 ± 0.0	0.9 ± 0.3	
Barbiturates (M)	7	6.9 ± 5.2	8.6 ± 5.3	6.6 ± 3.5	7.6 ± 2.1	
	9	14.9 ± 4.5	13.7 ± 4.6	13.8 ± 1.1	11.3 ± 1.6	*
	11	20.3 ± 5.3	16.3 ± 5.3	14.8 ± 2.0	14.9 ± 3.9	
	13	16.5 ± 6.5	12.8 ± 6.3	11.5 ± 3.3	11.9 ± 1.9	
Barbiturates (NM)	7	2.6 ± 5.4	3.0 ± 5.4	1.1 ± 0.6	1.5 ± 1.0	
	9	7.0 ± 4.7	7.2 ± 4.7	9.7 ± 3.9	6.4 ± 1.0	
	11	9.2 ± 5.7	12.4 ± 5.4	12.4 ± 4.4	12.0 ± 3.5	
	13	5.2 ± 7.0	4.1 ± 6.6	3.1 ± 1.9	6.4 ± 1.0	***
Heroin	7	1.7 ± 5.5	1.9 ± 5.4	0.7 ± 0.5	1.5 ± 0.7	
	9	2.7 ± 4.8	3.2 ± 4.8	2.2 ± 1.1	2.4 ± 1.0	
	11	1.4 ± 5.9	2.0 ± 5.8	1.5 ± 0.5	1.6 ± 0.9	
	13	1.8 ± 7.1	1.1 ± 6.7	0.0 ± 0.0	0.3 ± 0.1	
Speed	7	2.7 ± 5.4	2.5 ± 5.4	1.0 ± 0.2	1.0 ± 0.5	
	9	2.8 ± 4.8	4.1 ± 4.8	3.8 ± 1.6	6.8 ± 5.5	
	11	2.6 ± 5.8	4.5 ± 5.7	3.7 ± 1.1	5.4 ± 1.7	
	13	2.9 ± 7.1	3.1 ± 6.6	1.8 ± 0.8	2.0 ± 0.7	

TABLE 5 (continued)

TYPE OF DRUG	GRADE LEVEL	YEAR 1977	1979	1981	1983	
Stimulants (M)	7	5.6 ± 5.3	4.0 ± 5.4	3.7 ± 0.3	4.4 ± 0.4	**
	9	6.0 ± 4.7	6.2 ± 4.8	7.2 ± 1.0	5.5 ± 1.4	
	11	9.0 ± 5.7	8.8 ± 5.5	7.4 ± 2.3	6.5 ± 3.1	
	13	5.7 ± 6.9	4.2 ± 6.6	3.5 ± 2.9	4.5 ± 1.1	
Stimulants (NM)	7	3.2 ± 5.3	4.2 ± 5.3	3.1 ± 0.6	3.4 ± 1.3	
	9	9.0 ± 4.7	10.5 ± 4.7	13.1 ± 1.9	15.5 ± 2.7	
	11	9.8 ± 5.7	19.1 ± 5.2	18.4 ± 4.6	29.0 ± 5.7	**
	13	6.4 ± 6.9	8.9 ± 6.4	7.1 ± 3.2	23.0 ± 2.4	***
Tranquillizers (M)	7	6.3 ± 5.3	5.4 ± 5.3	3.3 ± 1.7	4.2 ± 1.3	
	9	8.9 ± 4.7	6.1 ± 4.8	8.1 ± 1.5	6.5 ± 1.8	
	11	10.5 ± 5.6	9.2 ± 5.5	9.9 ± 2.0	9.3 ± 1.0	
	13	9.3 ± 6.8	7.2 ± 6.5	6.2 ± 1.4	7.3 ± 1.1	
Tranquillizers (NM)	7	2.1 ± 5.3	2.6 ± 5.4	1.4 ± 0.9	2.0 ± 1.0	
	9	5.5 ± 4.7	6.3 ± 4.8	6.3 ± 1.5	6.9 ± 1.7	
	11	7.0 ± 5.7	8.8 ± 5.5	6.4 ± 2.0	6.7 ± 3.2	
	13	5.6 ± 7.0	5.8 ± 6.5	2.1 ± 1.8	5.4 ± 1.6	**
LSD	7	2.5 ± 5.3	4.3 ± 5.4	2.0 ± 1.2	2.0 ± 1.1	
	9	5.8 ± 4.7	8.7 ± 4.7	10.7 ± 2.3	9.5 ± 1.2	
	11	10.7 ± 5.6	14.8 ± 5.4	16.0 ± 4.3	16.5 ± 3.4	
	13	6.5 ± 6.9	6.7 ± 6.5	6.5 ± 1.8	9.3 ± 2.5	
Other Hallucinogens	7	1.1 ± 5.4	2.0 ± 5.4	0.9 ± 0.3	0.9 ± 0.9	
	9	3.4 ± 4.8	4.0 ± 4.8	4.8 ± 2.5	6.4 ± 1.9	
	11	8.0 ± 5.7	10.7 ± 5.5	7.3 ± 2.4	11.5 ± 3.7	
	13	6.9 ± 6.9	5.5 ± 6.5	3.4 ± 2.5	8.4 ± 0.7	***
Cocaine	7	2.7 ± 5.3	4.2 ± 5.3	2.7 ± 1.3	2.8 ± 1.2	
	9	4.0 ± 4.7	5.7 ± 4.8	5.9 ± 1.8	4.6 ± 1.8	
	11	3.9 ± 5.8	6.1 ± 5.6	5.5 ± 1.9	5.0 ± 2.1	
	13	4.2 ± 7.0	4.0 ± 6.5	2.9 ± 2.6	5.0 ± 0.9	
PCP	7	-	-	1.2 ± 1.4	1.0 ± 0.4	
	9	-	-	2.8 ± 1.7	3.0 ± 0.3	
	11	-	-	3.4 ± 1.0	2.6 ± 1.8	
	13	-	-	1.1 ± 0.6	1.1 ± 1.0	

(M) Medical use
(NM) Non-medical use
- Not queried

* $p < .05$
** $p < .01$
*** $p < .001$

Note: See Appendix 3, Tables F & G for t-values.

TABLE 6

DRUG USE BY REGION

TYPE OF DRUG	REGION	YEAR 1981	YEAR 1983
Tobacco	METRO	26.3 ± 7.0	24.7 ± 5.1
	WEST	36.0 ± 6.4	31.7 ± 5.7
	EAST	29.1 ± 7.3	29.1 ± 3.5
	NORTH	23.5 ± 8.9	28.5 ± 5.1
Alcohol	METRO	70.7 ± 5.6	72.2 ± 5.6
	WEST	80.6 ± 1.7	71.6 ± 3.1
	EAST	73.0 ± 4.7	71.0 ± 4.9
	NORTH	74.4 ± 7.9	73.2 ± 3.7
Cannabis	METRO	19.1 ± 3.3	20.6 ± 5.3
	WEST	39.5 ± 5.5	25.6 ± 3.1
	EAST	28.9 ± 4.8	23.0 ± 1.8 *
	NORTH	25.5 ± 4.7	24.7 ± 4.2
Glue	METRO	1.6 ± 0.6	2.2 ± 1.5
	WEST	2.6 ± 0.3	4.2 ± 0.4
	EAST	2.1 ± 1.0	2.7 ± 0.6
	NORTH	3.4 ± 3.3	3.3 ± 1.8
Other Solvents	METRO	2.0 ± 1.4	3.2 ± 1.2
	WEST	3.4 ± 0.1	4.8 ± 1.4
	EAST	4.0 ± 0.6	3.3 ± 0.4
	NORTH	7.7 ± 3.8	5.9 ± 2.4
Barbiturates (M)	METRO	10.1 ± 2.4	8.5 ± 3.2
	WEST	14.7 ± 1.2	10.7 ± 2.1
	EAST	10.8 ± 1.7	12.8 ± 2.3
	NORTH	15.5 ± 5.0	12.3 ± 2.3
Barbiturates (NM)	METRO	4.9 ± 3.5	4.2 ± 1.9
	WEST	13.0 ± 5.3	6.3 ± 1.3
	EAST	5.8 ± 1.3	6.5 ± 2.4
	NORTH	4.8 ± 1.7	7.7 ± 0.9 **
Heroin	METRO	0.9 ± 1.2	1.1 ± 0.6
	WEST	2.5 ± 0.9	1.8 ± 0.9
	EAST	1.0 ± 0.4	1.8 ± 0.7
	NORTH	0.5 ± 0.6	1.7 ± 1.0
Speed	METRO	1.5 ± 0.9	1.5 ± 1.2
	WEST	5.0 ± 1.7	5.5 ± 4.2
	EAST	2.0 ± 0.6	3.2 ± 1.1
	NORTH	2.5 ± 0.8	4.7 ± 2.5

TABLE 6 (continued)

TYPE OF DRUG	REGION	YEAR 1981	YEAR 1983	
Stimulants (M)	METRO	4.3 ± 1.3	4.5 ± 0.9	
	WEST	8.4 ± 1.3	5.6 ± 0.8	
	EAST	4.8 ± 1.4	5.4 ± 2.7	
	NORTH	6.6 ± 4.6	4.7 ± 1.2	
Stimulants (NM)	METRO	5.2 ± 1.6	14.1 ± 4.4	***
	WEST	18.8 ± 3.7	17.1 ± 2.9	
	EAST	11.2 ± 1.9	13.8 ± 3.6	
	NORTH	7.7 ± 2.8	16.0 ± 1.1	***
Tranquillizers (M)	METRO	5.9 ± 1.3	5.2 ± 1.5	
	WEST	9.2 ± 1.3	6.5 ± 0.8	
	EAST	6.5 ± 2.1	7.2 ± 1.9	
	NORTH	8.5 ± 3.2	7.0 ± 3.0	
Tranquillizers (NM)	METRO	3.5 ± 1.0	4.0 ± 0.6	
	WEST	6.0 ± 1.3	5.3 ± 1.9	
	EAST	4.8 ± 2.6	5.6 ± 2.1	
	NORTH	5.0 ± 2.5	4.0 ± 1.4	
LSD	METRO	5.8 ± 3.2	7.6 ± 3.6	
	WEST	14.3 ± 3.9	9.4 ± 1.1	
	EAST	8.9 ± 2.0	7.8 ± 1.9	
	NORTH	9.6 ± 3.0	9.7 ± 2.7	
Other Hallucinogens	METRO	3.1 ± 3.0	5.2 ± 1.8	
	WEST	6.4 ± 2.7	7.5 ± 2.4	
	EAST	4.2 ± 2.1	4.5 ± 1.2	
	NORTH	3.4 ± 3.2	5.9 ± 2.3	
PCP	METRO	1.0 ± 0.7	1.7 ± 1.2	
	WEST	3.4 ± 1.7	2.0 ± 0.5	
	EAST	2.6 ± 1.3	2.4 ± 1.1	
	NORTH	2.5 ± 2.[illegible]	1.3 ± 1.7	
Cocaine	METRO	4.1 ± 2.4	3.2 ± 1.3	
	WEST	6.2 ± 1.9	4.9 ± 1.9	
	EAST	4.1 ± 1.8	3.6 ± 1.1	
	NORTH	3.3 ± 1.6	4.7 ± 0.9	

(M) Medical use
(NM) Non-medical use

* $p < .05$
** $p < .01$
*** $p < .001$

Note: See Appendix 3, Tables H & I for t-values.

TABLE 7

FREQUENCY OF ALCOHOL USE WITHIN PRIOR TWELVE MONTHS

FREQUENCY OF ALCOHOL USE	PERCENTAGE OF TOTAL SAMPLE		PERCENTAGE OF USERS	
	1981	1983	1981	1983
None	25.1 ± 2.3	28.3 ± 2.3	-	-
On special occasions	32.8 ± 2.0	31.3 ± 3.0	43.5 ± 2.4	43.6 ± 3.2
Once a month or less	13.8 ± 1.6	13.8 ± 1.4	18.3 ± 2.1	19.3 ± 2.0
2-3 times a month	12.5 ± 1.3	11.2 ± 0.7	16.6 ± 1.7	15.7 ± 1.1
About once a week	8.7 ± 1.1	8.1 ± 1.1	11.5 ± 1.5	11.3 ± 1.6
2-3 times a week	6.1 ± 1.3	5.6 ± 0.8	8.1 ± 1.8	7.8 ± 1.2
4-5 times a week	0.8 ± 0.3	1.2 ± 0.3	1.1 ± 0.5	1.7 ± 0.4
Almost daily	0.6 ± 0.4	0.5 ± 0.2	0.8 ± 0.5	0.6 ± 0.3

Note: See Appendix 3, Table J for t-values.

TABLE 8

FREQUENCY OF TOBACCO USE WITHIN PRIOR TWELVE MONTHS

FREQUENCY OF TOBACCO USE	PERCENTAGE OF TOTAL SAMPLE		PERCENTAGE OF USERS	
	1981	1983	1981	1983
None	69.7 ± 3.7	70.9 ± 2.8	-	-
Less than 1 cigarette daily	8.5 ± 0.9	8.8 ± 1.3	28.1 ± 2.6	30.9 ± 3.3
1-2 cigarettes daily	4.6 ± 0.7	4.2 ± 0.6	15.2 ± 1.9	14.5 ± 1.4
3-5 cigarettes daily	5.7 ± 0.9	5.0 ± 0.8	18.9 ± 3.1	17.1 ± 2.0
6-10 cigarettes daily	5.4 ± 1.1	4.8 ± 0.8	17.7 ± 2.1	16.3 ± 2.6
11-15 cigarettes daily	2.6 ± 0.6	2.9 ± 0.6	8.5 ± 1.4	10.0 ± 1.6
16-20 cigarettes daily	2.1 ± 0.5	2.0 ± 0.5	6.8 ± 1.2	6.8 ± 1.6
More than 20 daily	1.4 ± 0.7	1.3 ± 0.4	4.8 ± 1.8	4.5 ± 1.3

Note: See Appendix 3, Table J for t-values.

TABLE 9

FREQUENCY OF CANNABIS USE WITHIN THE PRIOR TWELVE MONTHS

FREQUENCY OF CANNABIS USE	PERCENTAGE OF TOTAL SAMPLE		PERCENTAGE OF USERS	
	1981	1983	1981	1983
None	69.9 ± 2.8	76.3 ± 1.8	-	-
1-2 times	8.4 ± 1.1	7.7 ± 1.0	28.2 ± 5.1	32.4 ± 3.5
3-5 times	3.7 ± 1.3	3.6 ± 0.6	12.4 ± 3.1	15.1 ± 2.1
6-9 times	4.2 ± 0.6	3.0 ± 0.5	14.0 ± 1.4	12.5 ± 1.6
10-19 times	3.9 ± 1.0	2.7 ± 0.5	13.0 ± 2.5	11.4 ± 2.0
20-39 times	3.2 ± 0.9	2.1 ± 0.3	10.7 ± 2.1	9.0 ± 1.4
40+ times	6.5 ± 1.1	4.6 ± 0.8	21.7 ± 2.2	19.5 ± 3.0

Note: See Appendix 3, Table J for t-values.

TABLE 10

FREQUENCY OF DRUG USE WITHIN PRIOR TWELVE MONTHS FOR TOTAL SAMPLE: 1983

TYPE OF DRUG	FREQUENCY						
	NONE	1-2	3-5	6-9	10-19	20-39	40+
Glue	96.8 ± 0.4	2.6 ± 0.4	0.3 ± 0.1	0.2 ± 0.1	0.1 ± 0.1	0.0 ± 0.0	0.1 ± 0.1
Other Solvents	95.9 ± 0.7	3.0 ± 0.6	0.6 ± 0.3	0.2 ± 0.1	0.2 ± 0.1	0.1 ± 0.1	0.0 ± 0.1
Barbiturates (M)	89.0 ± 1.3	7.9 ± 0.9	1.6 ± 0.3	0.6 ± 0.2	0.5 ± 0.3	0.2 ± 0.1	0.3 ± 0.2
Barbiturates (NM)	94.0 ± 1.0	2.9 ± 0.4	1.2 ± 0.3	0.7 ± 0.2	0.6 ± 0.3	0.3 ± 0.1	0.4 ± 0.2
Heroin	98.4 ± 0.4	0.9 ± 0.3	0.3 ± 0.1	0.1 ± 0.1	0.1 ± 0.1	0.1 ± 0.1	0.3 ± 0.1
Speed	96.1 ± 1.7	2.1 ± 0.6	0.7 ± 0.4	0.4 ± 0.4	0.3 ± 0.3	0.3 ± 0.1	0.2 ± 0.2
Stimulants (M)	94.8 ± 0.9	3.3 ± 0.7	0.9 ± 0.3	0.5 ± 0.1	0.3 ± 0.1	0.1 ± 0.1	0.2 ± 0.2
Stimulants (NM)	84.6 ± 1.8	6.6 ± 1.0	2.9 ± 0.5	1.9 ± 0.4	1.9 ± 0.4	1.1 ± 0.4	1.1 ± 0.4
Tranquillizers (M)	93.5 ± 0.8	4.5 ± 0.6	0.9 ± 0.4	0.4 ± 0.2	0.2 ± 0.2	0.3 ± 0.2	0.2 ± 0.2
Tranquillizers (NM)	95.0 ± 1.0	3.0 ± 0.6	0.7 ± 0.2	0.5 ± 0.2	0.5 ± 0.2	0.2 ± 0.1	0.2 ± 0.2
LSD	91.4 ± 1.1	3.5 ± 0.5	1.6 ± 0.3	1.3 ± 0.5	1.0 ± 0.5	0.6 ± 0.3	0.6 ± 0.3
Other Hallucinogens	94.0 ± 1.1	3.5 ± 0.5	1.1 ± 0.4	0.6 ± 0.3	0.4 ± 0.2	0.1 ± 0.1	0.2 ± 0.1
Cocaine	95.9 ± 0.9	2.6 ± 0.5	0.7 ± 0.4	0.2 ± 0.1	0.3 ± 0.1	0.1 ± 0.1	0.3 ± 0.1
PCP	98.0 ± 0.5	1.3 ± 0.3	0.2 ± 0.1	0.2 ± 0.2	0.1 ± 0.2	0.0 ± 0.0	0.1 ± 0.1

(M) Medical use
(NM) Non-medical use

TABLE 11

FREQUENCY OF DRUG USE WITHIN PRIOR TWELVE MONTHS FOR USERS: 1983

TYPE OF DRUG	1-2	3-5	6-9	10-19	20-39	40+
Glue	81.2 ± 4.4	9.6 ± 3.1	5.4 ± 4.3	1.6 ± 3.0	0.0 ± 0.0	2.2 ± 2.4
Other Solvents	72.8 ± 6.1	14.8 ± 7.1	4.7 ± 2.7	4.4 ± 2.5	2.1 ± 2.1	1.2 ± 1.6
Barbiturates (M)	71.7 ± 3.5	14.3 ± 2.0	3.0 ± 1.6	2.4 ± 1.6	0.8 ± 0.8	1.5 ± 1.2
Barbiturates (NM)	47.4 ± 5.8	19.6 ± 3.7	12.2 ± 2.9	10.4 ± 4.3	4.3 ± 1.8	6.1 ± 3.6
Heroin	52.6 ± 11.7	16.0 ± 6.4	4.5 ± 4.3	5.3 ± 5.7	4.7 ± 5.0	16.9 ± 5.5
Speed	53.4 ± 11.9	16.7 ± 5.3	11.0 ± 5.0	6.5 ± 4.2	7.1 ± 2.5	5.3 ± 4.1
Stimulants (M)	64.0 ± 8.3	16.5 ± 5.2	8.9 ± 2.0	5.1 ± 2.5	1.9 ± 0.9	3.6 ± 3.0
Stimulants (NM)	42.6 ± 5.0	18.9 ± 2.9	12.2 ± 2.5	12.1 ± 1.9	7.2 ± 1.9	6.9 ± 2.6
Tranquillizers (M)	69.1 ± 8.0	13.6 ± 5.4	5.8 ± 2.4	3.8 ± 2.7	4.6 ± 3.2	3.1 ± 2.6
Tranquillizers (NM)	60.2 ± 8.2	14.2 ± 3.3	9.4 ± 2.8	9.7 ± 3.0	3.2 ± 2.0	3.3 ± 3.3
LSD	41.2 ± 6.0	19.0 ± 3.7	14.8 ± 5.4	11.2 ± 4.5	6.5 ± 3.5	7.2 ± 4.1
Other Hallucinogens	59.4 ± 9.2	19.3 ± 5.3	10.0 ± 4.1	6.4 ± 3.1	2.2 ± 1.5	2.8 ± 1.5
Cocaine	64.0 ± 8.0	15.9 ± 7.3	4.3 ± 3.2	6.1 ± 2.7	2.5 ± 1.8	7.3 ± 3.6
PCP	65.2 ± 9.2	11.6 ± 5.4	12.0 ± 7.8	6.2 ± 8.1	1.1 ± 2.2	3.9 ± 5.3

(M) Medical use
(NM) Non-medical use

TABLE 12

FREQUENCY OF CANNABIS AND ALCOHOL USE WITHIN THE PRIOR FOUR WEEKS: 1983

	PERCENTAGE OF TOTAL SAMPLE	PERCENTAGE OF USERS
CANNABIS		
Never used during last 4 weeks	85.9 ± 1.4	-
Used 1-2 times during last 4 weeks	7.8 ± 0.8	55.3 ± 3.3
Used 1-2 times each week	2.8 ± 0.5	19.5 ± 2.6
Used 3-4 times each week	1.6 ± 0.5	11.3 ± 3.0
Used 5-6 times each week	1.1 ± 0.2	7.6 ± 1.4
Used daily during last 4 weeks	0.9 ± 0.2	6.3 ± 1.7
ALCOHOL		
Never used during last 4 weeks	43.6 ± 1.4	-
Used 1-2 times during last 4 weeks	36.2 ± 2.0	64.2 ± 2.3
Used 1-2 times each week	12.5 ± 0.9	22.2 ± 1.9
Used 3-4 times each week	4.9 ± 0.5	8.8 ± 0.9
Used 5-6 times each week	2.3 ± 0.4	4.0 ± 0.7
Used daily during last 4 weeks	0.4 ± 0.2	0.8 ± 0.3

TABLE 13

REPORTED FREQUENCY OF BECOMING TIGHT, DRUNK AND CONSUMING FIVE OR MORE DRINKS ON THE SAME OCCASION DURING THE LAST FOUR WEEKS: 1983

	PERCENTAGE OF TOTAL SAMPLE	PERCENTAGE OF USERS
Becoming Tight		
Didn't drink during last 4 weeks	48.3 ± 1.4	-
Never been tight	32.2 ± 2.2	62.3 ± 3.5
Once	9.7 ± 0.9	18.8 ± 1.8
Twice	5.1 ± 0.6	9.9 ± 1.3
3 times	1.9 ± 0.4	3.8 ± 0.8
4 times	1.4 ± 0.3	2.7 ± 0.6
5 or more times	1.3 ± 0.3	2.5 ± 0.5
Becoming Drunk		
Didn't drink during last 4 weeks	47.7 ± 1.6	-
Never been drunk	35.8 ± 2.0	68.5 ± 3.0
Once	10.1 ± 1.2	19.[illegible] ± 2.2
Twice	3.5 ± 0.4	6.7 ± 0.8
3 times	1.2 ± 0.4	2.4 ± 0.7
4 times	0.7 ± 0.3	1.3 ± 0.5
5 or more times	1.0 ± 0.4	1.8 ± 0.8
Having 5 or more drinks on a single occasion		
Didn't drink during last 4 weeks	48.4 ± 1.1	-
Never	28.2 ± 1.6	54.6 ± 3.1
Once	10.5 ± 0.9	20.3 ± 1.8
Twice	5.3 ± 0.7	10.3 ± 1.2
3 times	2.7 ± 0.5	5.2 ± 1.0
4 times	2.0 ± 0.4	3.9 ± 0.8
5 or more times	3.0 ± 0.6	5.7 ± 1.2

TABLE 14

PREVALENCE OF DRUG USE AMONG FRANCO-ONTARIAN STUDENTS

DRUG	PERCENT USING DRUG AT LEAST ONCE IN PRIOR 12 MONTHS
Tobacco	37.2
Alcohol	77.0
Cannabis	34.8
Glue	5.8
Other Solvents	5.9
Barbiturates (M)	14.7
Barbiturates (NM)	9.7
Heroin	1.4
Speed	8.1
Stimulants (M)	9.8
Stimulants (NM)	19.8
Tranquillizers (M)	10.4
Tranquillizers (NM)	5.0
LSD	11.1
Other Hallucinogens	8.5
Cocaine	3.8
PCP	2.4

Note: Percentages based on weighted responses from 305 students who reported their ethnic ancestory as French.

APPENDIX 1

SAMPLING PROCEDURES AND DRUG USE QUESTIONS

SAMPLING PROCEDURES

The stratified single-stage cluster sample was accomplished by the following steps:

(i) allocating the approximate sample size required from within each stratum (grades 9 and 13 were under-allocated and over-allocated respectively, to compensate for large discrepancies in student enrolments). This allows for approximately equal precision in estimates when making grade comparisons;

(ii) estimating the number of homerooms required from within each stratum;

(iii) estimating the number of homerooms within each stratum which would be considered to form clusters of homerooms for creating the sampling frame (cluster size was equivalent to the total number of required homerooms within a stratum divided by two);

(iv) identifying or "creating" homeroom sampling units - intact classes of students were statistically identified or were "created" for larger groups of students (e.g., in high schools);

(v) estimating the number of homerooms existing per grade, per board (i.e., within each stratum);

(vi) converting the number of homerooms per grade/board into clusters of homerooms for each grade/board according to the previously determined cluster sizes (see (iii) above) - the total number of clusters of homerooms per stratum was, therefore, the accumulated total of the clusters per grade/board comprising the stratum;

(vii) drawing a random sample of two clusters (to permit statistical estimations of sampling error) of homerooms from the total number of clusters within each stratum;

(viii) in anticipation of refusals to participate by selected samples, two additional (alternative) samples of homeroom clusters were randomly selected from each stratum; and

(ix) all homerooms within selected clusters were considered to be part of the survey sample.

TABLE F (continued)

IN THE LAST 12 MONTHS, HOW OFTEN DID YOU USE THE DRUG CALLED **"SPEED"?**

IN THE LAST 12 MONTHS, HOW OFTEN DID YOU USE **STIMULANTS** OTHER THAN COCAINE (such as "Beans," "Christmas Trees," "Black Beauties," Diet Pills, etc.) **WITHOUT** A PRESCRIPTION OR **WITHOUT** A DOCTOR TELLING YOU TO TAKE THEM?

IN THE LAST 12 MONTHS, HOW OFTEN DID YOU USE **STIMULANT** PILLS **WITH** A PRESCRIPTION OR BECAUSE A DOCTOR TOLD YOU TO TAKE THEM?

IN THE LAST 12 MONTHS, HOW OFTEN DID YOU USE **TRANQUILLIZERS** (such as Valium, Librium, Serax, "Tranqs," "5's," "10's," etc.) **WITHOUT** A PRESCRIPTION OR **WITHOUT** A DOCTOR TELLING YOU TO TAKE THEM?

IN THE LAST 12 MONTHS, HOW OFTEN DID YOU USE **TRANQUILLIZERS WITH** A PRESCRIPTION OR BECAUSE A DOCTOR TOLD YOU TO TAKE THEM?

IN THE LAST 12 MONTHS, HOW OFTEN DID YOU USE **LSD** OR "ACID"?

IN THE LAST 12 MONTHS, HOW OFTEN DID YOU USE **HALLUCINOGENS,** OTHER THAN LSD OR PCP (for example, Mescaline and Psilocybin, "Magic Mushrooms," "Mesc," etc.)?

TABLE B

DRUG USE QUESTION STEMS

IN THE LAST 12 MONTHS, HOW OFTEN DID YOU USE **TOBACCO?**

IN THE LAST 12 MONTHS, HOW OFTEN HAVE YOU USED **ALCOHOL** - LIQUOR (rum, whisky, etc.), WINE OR BEER?

IN THE LAST 12 MONTHS, HOW OFTEN DID YOU USE **CANNABIS** (also known as Marijuana, "Grass," "Pot," "Hashish," "Hash," Hash Oil)?

IN THE LAST 12 MONTHS, HOW OFTEN DID YOU SNIFF **GLUE** (for example, airplane glue, contact cement, etc.) IN ORDER TO GET HIGH?

IN THE LAST 12 MONTHS, HOW OFTEN DID YOU SNIFF **SOLVENTS** (such as nail polish remover, paint thinner or gasoline, etc.) IN ORDER TO GET HIGH?

IN THE LAST 12 MONTHS, HOW OFTEN DID YOU TAKE **BARBITURATES** (for example, "Bombers," "Seconal," "Amytal," etc.) **WITHOUT** A PRESCRIPTION OR **WITHOUT** A DOCTOR TELLING YOU TO TAKE THEM?

IN THE LAST 12 MONTHS, HOW OFTEN DID YOU TAKE **BARBITURATES WITH** A PRESCRIPTION OR BECAUSE A DOCTOR TOLD YOU TO TAKE THEM?

IN THE LAST 12 MONTHS, HOW OFTEN DID YOU USE **HEROIN** (also known as "H," "Junk," or "Smack")?

TABLE B

RESPONSE RATE AT STUDENT LEVEL

	Selected	Participated	Absent	Without Parental Consent Form	Percentage Participation
Total Sample	6849	5835	670	344	85.2
Region					
Metro	1497	1235	157	105	82.5
West	2733	2379	267	87	87.0
East	1978	1663	190	125	84.1
North	641	558	56	27	87.1
Grade					
5	1334	1098	82	154	82.3
7	1737	1548	103	86	89.1
9	1355	1152	140	63	85.0
11	1113	931	145	37	83.6
13	1310	1106	200	4	84.4

APPENDIX 2

SAMPLE RESPONSES AND NON-RESPONSE RATES

TABLE A

SCHOOL, CLASS AND STUDENT PARTICIPATION BY BOARD AND REGION

REGION	BOARD	NO. OF PARTICIPATING SCHOOLS	NO. OF PARTICIPATING CLASSES	STUDENTS NO.	STUDENTS % OF TOTAL
TORONTO	Board 1	15	17	412	
	Board 2	11	11	301	
	Board 3	8	8	150	
	Board 4	6	6	124	
	Board 5	13	13	248	
	Regional Totals	(53)	(55)	(1235)	21.2
WEST	Board 6	11	11	332	
	Board 7	12	12	283	
	Board 8	11	19	408	
	Board 9	9	10	245	
	Board 10	10	13	302	
	Board 11	8	8	176	
	Board 12	10	10	228	
	Board 13	6	10	168	
	Board 14	10	11	237	
	Regional Totals	(87)	(104)	(2379)	40.8
EAST	Board 15	7	7	176	
	Board 16	7	8	164	
	Board 17	7	8	217	
	Board 18	8	16	341	
	Board 19	6	7	154	
	Board 20	7	8	177	
	Board 21	7	7	150	
	Board 22	6	6	140	
	Board 23	7	7	144	
	Regional Totals	(62)	(74)	(1663)	28.5
NORTH	Board 24	2	3	75	
	Board 25	1	2	44	
	Board 26	1	2	45	
	Board 27	3	3	55	
	Board 28	5	5	84	
	Board 29	3	3	81	
	Board 30	4	4	80	
	Board 31	6	6	94	
	Regional Totals	(25)	(28)	(558)	9.6
TOTALS		227	261	5835	100.1

TABLE B

t-VALUES FOR COMPARISONS BETWEEN MALES AND FEMALES: 1983

DRUG	t-VALUE
Tobacco	0.81
Alcohol	1.00
Cannabis	5.83 ***
Glue	2.01 *
Other Solvents	1.56
Barbiturates (M)	0.81
Barbiturates (NM)	2.69 **
Heroin	1.54
Speed	1.93
Stimulants (M)	1.07
Stimulants (NM)	0.73
Tranquillizers (M)	1.54
Tranquillizers (NM)	0.88
LSD	4.44 ***
Other Hallucinogens	5.78 ***
Cocaine	4.03 ***
PCP	1.37

* $p < .05$
** $p < .01$
*** $p < .001$

(M) Medical
(NM) Non-medical

TABLE C

ITEM NON-RESPONSE: GRADES 7 TO 13

VARIABLE	PERCENT NOT RESPONDING
Age	0.3
Sex	0.4
Tobacco	1.8
Alcohol	1.1
Cannabis	1.5
Glue	2.2
Solvents	2.4
Barbiturates (NM)	1.1
Barbiturates (M)	1.8
Heroin	2.2
Speed	1.3
Stimulants (NM)	1.3
Stimulants (M)	1.8
Tranquillizers (NM)	1.7
Tranquillizers (M)	2.4
LSD	1.8
PCP	1.3
Hall	1.1
Cocaine	1.7
Cannabis use during last 4 weeks	1.4
Alcohol use during last 4 weeks	1.2
Becoming "tight" during last 4 weeks	0.9
Becoming "drunk" during last 4 weeks	0.9
Having 5 or more drinks during last 4 weeks	0.9

(M) Medical use
(NM) Non-medical use

APPENDIX 3

t-VALUES FOR DIFFERENCE IN PROPORTIONS

TABLE A

t-VALUES FOR COMPARISONS BETWEEN 1981 AND 1983: TOTAL SAMPLE

DRUG	t-VALUE
Tobacco	.50
Alcohol	2.09 *
Cannabis	3.61 ***
Glue	2.65 **
Other Solvents	1.95
Barbiturates (M)	1.75
Barbiturates (NM)	1.61
Heroin	.28
Speed	.90
Stimulants (M)	1.41
Stimulants (NM)	2.53 *
Tranquillizers (M)	1.69
Tranquillizers (NM)	.14
LSD	1.46
Other Hallucinogens	1.44
Cocaine	1.00
PCP	1.06

(M) Medical
(NM) Non-medical

* $p < .05$
** $p < .01$
*** $p < .001$

Note: Significance of t-values for the total samples are likely affected by differences in the age distribution of the 1981 and 1983 samples. Trends in alcohol, cannabis and glue are best interpreted as being non-significant; however, the magnitude of decline for cannabis use may suggest a real change.

TABLE B

t-VALUES FOR COMPARISONS BETWEEN MALES AND FEMALES: 1983

DRUG	t-VALUE
Tobacco	0.81
Alcohol	1.00
Cannabis	5.83 ***
Glue	2.01 *
Other Solvents	1.56
Barbiturates (M)	0.81
Barbiturates (NM)	2.69 **
Heroin	1.54
Speed	1.93
Stimulants (M)	1.07
Stimulants (NM)	0.73
Tranquillizers (M)	1.54
Tranquillizers (NM)	0.88
LSD	4.44 ***
Other Hallucinogens	5.78 ***
Cocaine	4.03 ***
PCP	1.37

* $p < .05$
** $p < .01$
*** $p < .001$

(M) Medical
(NM) Non-medical

TABLE C

t-VALUES FOR COMPARISONS BETWEEN YEARS: 1981 vs. 1983

DRUG	BETWEEN YEAR CHANGE MALES	FEMALES
Tobacco	.80	1.41
Alcohol	1.15	2.84 **
Cannabis	3.15 ***	2.58 ***
Glue	2.67 ***	0.81
Other Solvents	2.35 *	1.11
Barbiturates (M)	2.65 **	0.09
Barbiturates (NM)	0.90	1.70
Heroin	0.00	1.20
Speed	1.70	0.40
Stimulants (M)	1.30	0.60
Stimulants (NM)	2.77 **	1.52
Tranquillizers (M)	2.50 *	0.50
Tranquillizers (NM)	0.21	0.50
LSD	0.61	1.40
Other Hallucinogens	2.56 *	0.11
Cocaine	0.11	1.20
PCP	0.96	0.37

(M) Medical
(NM) Non-medical

* $p < .05$
** $p < .01$
*** $p < .001$

TABLE D

t-VALUES FOR COMPARISONS BETWEEN AGE GROUPS: 1983

DRUG	≤13 vs 14-15	≤13 vs 16-17	≤13 vs 18+	14-15 vs 16-17	14-15 vs 18+	16-17 vs 18+
Tobacco	7.14 ***	7.35 ***	6.09 ***	3.25 **	1.18	3.55***
Alcohol	5.51 ***	10.77 ***	11.68 ***	9.17 ***	12.45 ***	0.87
Cannabis	11.34 ***	15.08 ***	24.49 ***	6.14 ***	8.66 ***	0.16
Glue	1.18	3.11 ***	6.77 ***	4.22 ***	5.97 ***	1.46
Other Solvents	2.39 *	6.74 ***	8.61 ***	2.19 *	3.22 **	1.63
Barbiturates (M)	2.06 *	3.00 **	3.64 ***	1.76	2.09 *	0.28
Barbiturates (NM)	6.99 ***	5.58 ***	6.93 ***	2.83 **	1.59	1.89
Heroin	1.38	1.42	1.23	0.00	2.40 *	2.47 *
Speed	2.13 *	5.23 ***	3.39 ***	0.69	1.08	1.10
Stimulants (M)	2.12	1.50	0.46	0.26	1.08	1.02
Stimulants (NM)	8.46 ***	8.09 ***	16.27 ***	3.75 ***	5.60 ***	0.61
Tranquillizers (M)	2.20 *	6.08 ***	3.73 ***	2.86 **	1.46	1.07
Tranquillizers (NM)	4.01 ***	3.32 ***	4.09 ***	0.29	0.40	0.06
LSD	10.40 ***	8.56 ***	6.12 ***	3.80 ***	1.58	1.60
Other Hallucinogens	4.77 ***	7.87 ***	7.62 ***	3.78 ***	3.27 **	0.61
Cocaine	1.30	2.60 **	3.28 **	1.23	1.72	0.40
PCP	5.04 ***	2.08 *	1.23	1.22	0.56	0.51

* $p < .05$

** $p < .01$

*** $p < .001$

(M) Medical

(NM) Non-medical

TABLE E

t-VALUES FOR 1981 VERSUS 1983 COMPARISONS WITHIN AGE LEVEL

DRUG	AGE LEVEL			
	≤13	14-15	16-17	18+
Tobacco	1.34	0.82	0.30	0.95
Alcohol	1.21	1.47	1.33	0.03
Cannabis	1.30	0.47	1.16	1.15
Glue	1.27	1.67	0.00	1.89
Other Solvents	1.36	0.58	1.11	1.73
Barbiturates (M)	0.66	2.23 *	0.00	0.15
Barbiturates (NM)	0.42	1.11	0.69	3.22 **
Heroin	1.89	0.17	0.66	0.65
Speed	0.33	1.24	0.42	1.36
Stimulants (M)	0.00	1.25	0.32	0.15
Stimulants (NM)	0.63	1.90	0.93	9.18 ***
Tranquillizers (M)	0.53	1.18	0.33	0.24
Tranquillizers (NM)	0.79	0.07	0.00	3.36 ***
LSD	0.49	0.29	0.23	1.74
Other Hallucinogens	0.00	0.60	2.35 *	3.27 ***
Cocaine	0.30	1.22	0.16	1.73
PCP	0.33	0.09	0.97	0.49

(M) Medical
(NM) Non-medical

* $p < .05$
** $p < .01$
*** $p < .001$

TABLE F

t-VALUES FOR COMPARISONS BETWEEN GRADES: 1983

DRUG	G.7 vs G.9	G.7 vs G.11	G.7 vs G.13	G.9 vs G.11	G.9 vs G.13	G.11 vs G.13
Tobacco	5.10 ***	6.77 ***	4.06 ***	4.13 ***	1.45	4.56 ***
Alcohol	5.40 ***	10.79 ***	11.64 ***	10.24 ***	12.83 ***	1.23
Cannabis	10.15 ***	13.33 ***	19.98 ***	6.14 ***	7.27 ***	2.23 *
Glue	1.25	5.11 ***	10.20 ***	3.97 ***	8.59 ***	2.51 *
Other Solvents	3.15 **	6.83 ***	11.11 ***	1.56	3.05 **	2.36 *
Barbiturates (M)	2.75 **	3.18 **	2.96 **	1.64	0.46	1.33
Barbiturates (NM)	6.85 ***	5.65 ***	6.84 ***	3.01 **	0.00	3.01 **
Heroin	1.46	0.16	3.11 **	1.16	4.26 ***	2.62 **
Speed	2.09 **	4.84 ***	2.22 *	0.48	1.72	3.61 ***
Stimulants (M)	1.48	1.30	0.16	0.57	1.08	1.17
Stimulants (NM)	7.78 ***	8.45 ***	13.86 ***	4.13 ***	4.01 ***	1.87
Tranquillizers (M)	2.05 *	5.98 ***	3.59 ***	2.65 **	0.75	2.57 *
Tranquillizers (NM)	4.89 ***	2.77 **	3.52 ***	0.11	1.26	0.72
LSD	8.90 ***	7.85 ***	5.17 ***	3.75 ***	0.14	3.30 ***
Other Hallucinogens	5.15 ***	5.45 ***	13.14 ***	2.40 *	1.95	1.61
Cocaine	1.65	1.73	2.84 **	0.28	0.39	0.00
PCP	8.09 ***	1.68	0.19	0.43	3.70 ***	1.42

* $p < .05$
** $p < .01$
*** $p < .001$

(M) Medical
(NM) Non-medical

TABLE G

t-VALUES FOR 1981 VERSUS 1983 COMPARISONS WITHIN GRADE LEVEL

DRUG	Grade 7	Grade 9	Grade 11	Grade 13
Tobacco	1.58	0.14	0.30	1.36
Alcohol	1.39	1.80	2.67 **	0.95
Cannabis	0.30	0.90	0.48	0.28
Glue	0.94	1.90	0.54	1.03
Other Solvents	1.32	1.01	1.22	0.00
Barbiturates (M)	0.48	2.52 *	0.04	0.21
Barbiturates (NM)	0.79	1.61	0.14	3.31 ***
Heroin	1.80	0.27	0.18	0.00
Speed	0.00	1.04	1.68	0.39
Stimulants (M)	2.69 **	1.91	0.45	0.67
Stimulants (NM)	0.41	1.39	2.86 **	8.07 ***
Tranquillizers (M)	0.82	1.34	0.52	1.23
Tranquillizers (NM)	0.87	0.52	0.16	2.82 **
LSD	0.00	0.90	0.18	1.80
Other Hallucinogens	0.00	1.00	1.87	4.14 ***
Cocaine	0.11	1.00	0.34	1.69
PCP	0.61	0.23	0.75	0.00

* $p < .05$
** $p < .01$
*** $p < .001$

(M) Medical
(NM) Non-medical

TABLE H

t-VALUES FOR COMPARISONS BETWEEN GEOGRAPHICAL REGIONS: 1983

DRUG	METRO vs WEST	METRO vs EAST	METRO vs NORTH	WEST vs EAST	WEST vs NORTH	EAST vs NORTH
Tobacco	1.76	1.39	1.02	0.75	0.81	0.19
Alcohol	0.18	0.31	0.28	0.20	0.63	0.68
Cannabis	1.59	0.84	1.17	1.44	0.33	0.72
Glue	2.49 *	0.59	0.90	3.96 ***	0.93	0.60
Other Solvents	1.64	0.15	1.88	1.89	0.73	1.97 *
Barbiturates (M)	1.12	2.14 *	1.87	1.31	0.98	0.30
Barbiturates (NM)	1.76	1.47	3.28 **	0.14	1.66	0.91
Heroin	1.22	1.39	0.95	0.00	0.14	0.14
Speed	1.73	2.19 *	2.24 *	0.99	0.22	1.05
Stimulants (M)	1.77	0.61	0.25	0.14	1.19	0.46
Stimulants (NM)	1.11	0.10	0.81	1.43	0.69	1.18
Tranquillizers (M)	1.55	1.65	1.02	0.67	0.30	0.11
Tranquillizers (NM)	0.91	1.40	0.00	0.20	1.07	1.22
LSD	0.90	0.09	0.87	1.47	0.19	1.11
Other Hallucinogens	1.50	0.64	0.47	2.18 *	0.94	1.06
Cocaine	1.50	0.48	1.89	1.19	0.19	1.51
PCP	0.44	0.83	0.37	0.65	0.77	1.06

* $p < .05$
** $p < .01$
*** $p < .001$

(M) Medical
(NM) Non-medical

TABLE I

t-VALUES FOR 1981 VERSUS 1983 COMPARISONS WITHIN REGION

TYPE OF DRUG	REGION		
	METRO	EAST	NORTH
Tobacco	0.34	0.00	0.94
Alcohol	0.37	0.57	0.26
Cannabis	0.47	2.28 *	0.25
Glue	0.72	0.99	0.05
Other Solvents	1.31	1.73	0.92
Barbiturates (M)	0.77	1.36	1.11
Barbiturates (NM)	0.31	0.50	2.87 **
Heroin	0.25	1.80	1.86
Speed	0.00	1.91	1.59
Stimulants (M)	0.24	0.39	0.75
Stimulants (NM)	3.68 ***	1.30	5.41 ***
Tranquillizers (M)	0.65	0.48	0.65
Tranquillizers (NM)	0.77	0.47	0.67
LSD	0.70	0.82	0.05
Other Hallucinogens	1.04	0.25	1.26
Cocaine	0.64	0.48	1.48
PCP	0.95	0.22	0.81

* $p < .05$
** $p < .01$
*** $p < .001$

(M) Medical
(NM) Non-medical

Note: Comparisons between 1981 and 1983 were not computed for Western Ontario; see text.

TABLE J

t-VALUES FOR BETWEEN YEAR COMPARISONS AMONG USERS:

1981 vs. 1983

FREQUENCY (ANNUAL)	t-VALUE
FREQUENCY OF ALCOHOL USE	
Special Occasions	0.05
Once a month or less	0.68
2 - 3 times a month	0.87
About once a week	0.18
2 - 3 times a week	0.28
4 - 5 times a week	1.81
Almost daily	0.73
FREQUENCY OF TOBACCO USE	
Less than one cigarette daily	1.31
1 - 2 cigarettes daily	0.55
3 - 5 cigarettes daily	0.95
6 - 10 cigarettes daily	0.81
11 - 15 cigarettes daily	1.36
16 - 20 cigarettes daily	0.00
21+ cigarettes daily	0.26
FREQUENCY OF CANNABIS USE	
1 - 2 times	1.31
3 - 5 times	1.41
6 - 9 times	1.31
10 - 19 times	0.97
20 - 29 times	1.29
40+ times	1.15